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NEWS
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NEWS
         AUG 06 CAS REGISTRY enhanced with new experimental property tags
NEWS
         AUG 06
                 FSTA enhanced with new thesaurus edition
NEWS
         AUG 13
                 CA/CAplus enhanced with additional kind codes for granted
                 patents
         AUG 20
                 CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS
NEWS
                 Full-text patent databases enhanced with predefined
         AUG 27
                 patent family display formats from INPADOCDB
NEWS
      7
         AUG 27
                 USPATOLD now available on STN
         AUG 28 CAS REGISTRY enhanced with additional experimental
NEWS 8
                 spectral property data
NEWS 9
         SEP 07
                 STN AnaVist, Version 2.0, now available with Derwent
                 World Patents Index
NEWS 10 SEP 13
                 FORIS renamed to SOFIS
NEWS 11
         SEP 13
                 INPADOCDB enhanced with monthly SDI frequency
         SEP 17
NEWS 12
                 CA/CAplus enhanced with printed CA page images from
                 1967-1998
NEWS 13
         SEP 17
                 CAplus coverage extended to include traditional medicine
                 patents
NEWS 14 SEP 24
                 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 15 OCT 02 CA/Caplus enhanced with pre-1907 records from Chemisches
                 Zentralblatt
NEWS 16 OCT 19 BEILSTEIN updated with new compounds
NEWS 17 NOV 15 Derwent Indian patent publication number format enhanced
NEWS 18 NOV 19 WPIX enhanced with XML display format
NEWS 19 NOV 30 ICSD reloaded with enhancements
NEWS 20 DEC 04 LINPADOCDB now available on STN
NEWS 21 DEC 14 BEILSTEIN pricing structure to change
NEWS 22 DEC 17
                 USPATOLD added to additional database clusters
NEWS 23
         DEC 17
                 IMSDRUGCONF removed from database clusters and STN
         DEC 17
NEWS 24
                 DGENE now includes more than 10 million sequences
NEWS 25
         DEC 17
                 TOXCENTER enhanced with 2008 MeSH vocabulary in
                 MEDLINE segment
NEWS 26
         DEC 17
                 MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS 27
         DEC 17
                 CA/CAplus enhanced with new custom IPC display formats
NEWS 28
         DEC 17
                 STN Viewer enhanced with full-text patent content
                 from USPATOLD
NEWS 29
         JAN 02
                 STN pricing information for 2008 now available
NEWS 30
         JAN 16 CAS patent coverage enhanced to include exemplified
```

prophetic substances

NEWS 31 JAN 28 USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats

NEWS 32 JAN 28 MARPAT searching enhanced

NEWS 33 JAN 28 USGENE now provides USPTO sequence data within 3 days of publication

NEWS 34 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment

NEWS 35 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements

NEWS 36 FEB 08 STN Express, Version 8.3, now available

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 24 JANUARY 2008

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=> file reg

COST IN U.S. DOLLARS
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ENTRY SESSION
FULL ESTIMATED COST
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0.21

FILE 'REGISTRY' ENTERED AT 15:45:56 ON 19 FEB 2008
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STRUCTURE FILE UPDATES: 18 FEB 2008 HIGHEST RN 1004360-55-7 DICTIONARY FILE UPDATES: 18 FEB 2008 HIGHEST RN 1004360-55-7

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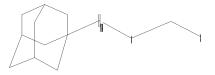
#### Page 3

on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>

Uploading C:\Program Files\Stnexp\Queries\10540547\Struc 1.str





chain nodes :
11 12 13 14
ring nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

6-11 11-12 12-13 13-14

ring bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10$ 

exact/norm bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10 \quad 11-12 \quad 12-13$ 

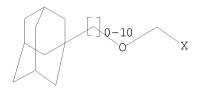
exact bonds : 6-11 13-14

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS 12:CLASS 13:CLASS 14:CLASS

# L1 STRUCTURE UPLOADED

=> d L1 HAS NO ANSWERS L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> 11

SAMPLE SEARCH INITIATED 15:46:08 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 82 TO ITERATE

100.0% PROCESSED 82 ITERATIONS SEARCH TIME: 00.00.01

4 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 1097 TO 2183 PROJECTED ANSWERS: 4 TO 200

4 SEA SSS SAM L1 L2

=> 11 full

FULL SEARCH INITIATED 15:46:12 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 1594 TO ITERATE

36 ANSWERS 100.0% PROCESSED 1594 ITERATIONS

SEARCH TIME: 00.00.01

L3 36 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS SINCE FILE LOTAL SESSION TOTAL ENTRY

FULL ESTIMATED COST 178.57 178.36

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FILE COVERS 1907 - 19 Feb 2008 VOL 148 ISS 8 FILE LAST UPDATED: 18 Feb 2008 (20080218/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

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=> 13

L4163 L3

=> d scan

T.4

163 ANSWERS CAPLUS COPYRIGHT 2008 ACS on STN 25-7 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) CC

1-Adamantyloxycarbonyl: a novel protecting group for phenols carrying strongly electron-withdrawing substituents

ST adamantyloxycarbonyl protective group phenol

ΙT Protective groups

((adamantyloxy)carbonyl, for phenols with electron-withdrawing substituents) ΤT 100-02-7, 4-Nitrophenol, reactions 367-27-1, 2,4-Difluorophenol394-41-2, 3-Fluoro-4-nitrophenol 403-19-0, 2-Fluoro-4-nitrophenol 769-39-1, 2,3,5,6-Tetrafluorophenol 771-61-9, 2,3,4,5,6-Pentafluorophenol 2713-31-7, 2,5-Difluorophenol 6418-38-8, 2,3-Difluorophenol 20994-04-1, 2,3,5,6-Tetrafluoro-4-nitrophenol 28177-48-2, 2,6-Difluorophenol 82419-26-9, 2,3-Difluoro-6-nitrophenol 139548-97-3, 2,5-Difluoro-6-nitrophenol RL: RCT (Reactant); RACT (Reactant or reagent) (condensation of, with adamantyl fluoroformate) ΤT 62087-82-5, 1-Adamantyl fluoroformate RL: RCT (Reactant); RACT (Reactant or reagent) (condensation of, with phenols) 156639-25-7 156639-26-8 156639-27-9 ΤТ RL: RCT (Reactant); RACT (Reactant or reagent) (deprotection of) 156639-13-3P 156639-14-4P ΤТ RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and hydrogenation of) 5854-73-9P 156639-15-5P 156639-16-6P 156639-17-7P 156639-18-8P ΙT 156639-19-9P 156639-20-2P 156639-21-3P 156639-22-4P 156639-24-6P 156639-28-0P 156639-29-1P 156639-30-4P 156639-23-5P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of) HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0 => d ibib abs hitstr 1-163 ANSWER 1 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2007:1466873 CAPLUS DOCUMENT NUMBER: 148:78669 TITLE: Preparation of fluoroadamantane derivatives INVENTOR(S): O, Josho; Murata, Koichi; Seki, Takashi; Shimizu, Tamaki; Yamashita, Koken PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 17pp. SOURCE: CODEN: JKXXAF DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: KIND PATENT NO. APPLICATION NO. DATE DATE \_\_\_\_ JP 2006-164865 20060614
TD 2006-164865 20060614 JP 2007332068 A 20071227 PRIORITY APPLN. INFO.:
OTHER SOURCE(S): MARPAT 148:78669 JP 2006-164865 20060614 GΙ

<sup>\*</sup> STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Adamantane derivs. I (G = halo, OH; J = H, COG; RFA, RFB = C1-20 AB perfluoroalkyl optionally containing etheric O) are reacted with (RFACO)20 (RFA = same as above) and then (2) reacted with RFBCH2OH (RFB = same as above) to give title derivs. II (RFA, RFB = same as above; T = H if J in I is H; T = CO2CH2RFB if J in I is COG). Another derivs. III (Q = CHF, CF2; R = H, C1-10 hydrocarbyl; X = H, CHROH if Y = H; X = F or OH if Y = F or OH, resp.) are prepared by (1) reacting IV (Q = same as above; Z1 = H, F, OH, COF) with protonic nucleophiles and (2) reacting the resulting V (Q =same as above; Y = Y = H, F, or OH if Z1 = H, F, or OH, resp.; Y = H if Z1= COF) with RCHO (R = same as above) in the presence of basic compds. Introduction of polymerizable group to III gives monomers, useful for manufacture of polymers which show good heat resistance, mold-release property, chemical resistance, transparency, light resistance, etc., and are useful as optical fibers, pellicles, lenses, display surface protective films, etc. Thus, (CF3CO)2O was added dropwise to I (G = OH, J = H) under cooling over 10 min and the reaction mixture was stirred at 25° for 4 h. CF3CH2OH was added dropwise to the reaction mixture under cooling with ice over 2 h and the mixture was stirred at  $25^{\circ}$  for 3 days to give II (T = H, RFA = RFB = CF3), VI, and VII with yields 14.25, 83.7, and 1.6%, resp. The product mixture was completely fluorinated and decomposed in the presence of KF to give IV (Q = CF2, Z1 = F), which was treated with NaF in acetone at  $25^{\circ}$  for 12 h and the resulting V (Q = CF2, Y = F) was treated with formalin in Me2SO/KOH solution at  $70^{\circ}$  for 10 h to give III (Q = CF2, X = F, R = H).

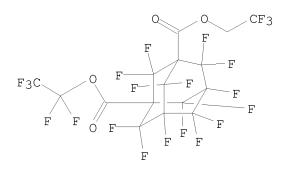
IT 960511-28-8P

RL: BYP (Byproduct); PREP (Preparation)

(preparation of hydroxy(1-hydroxyalkyl)fluoroadamantanes from (carboxy or halocarbonyl)adamantanes and intermediates in preparation)

RN 960511-28-8 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1,3-dicarboxylic acid, 2,2,4,4,5,6,6,7,8,8,9,9,10,10-tetradecafluoro-, 1-(1,1,2,2,2-pentafluoroethyl) 3-(2,2,2-trifluoroethyl) ester (CA INDEX NAME)



L4 ANSWER 2 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1454513 CAPLUS

DOCUMENT NUMBER: 148:79321

TITLE: Preparation of hydroxyproline oxime ether-containing

peptide analogs as hepatitis C virus (HCV) NS3-NS4A

protease inhibitors

INVENTOR(S): Or, Yat Sun; Sun, Ying; Wang, Zhe PATENT ASSIGNEE(S): Enanta Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 190pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	PATENT NO.					D	DATE		-	APPL	ICAT	ION 1	NO.		D.	ATE	
WO	2007	 1466	 95		A1	_	2007	 1221	,	 WO 2	 007-1	 US70	 481		2	0070	
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,
		CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FI,
		GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,
		KM,	KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,
		MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NΙ,	NO,	NZ,	OM,	PG,	PH,	PL,
	PT, RO, R			RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ТJ,	TM,	TN,
	TR, TT, T				UA,	UG,	US,	UΖ,	VC,	VN,	ZA,	ZM,	ZW				
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
		IS,	ΙΤ,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG,	BW,
		GH,	GM,	KE,	LS,	MW,	MΖ,	NΑ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,
	BY, KG, KZ				MD,	RU,	ТJ,	TM									
PRIORIT	PRIORITY APPLN. INFO.:									US 2	006-	8114	64P		P 2	0060	606
										US 2	006-	5033	85		A 2	0060	811
OTHER S	OTHER SOURCE(S):					PAT	148:	7932	1								

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. [I; R1, R2 = H, (substituted) aryl, heteroaryl, heterocyclyl, alkyl, cycloalkyl, cycloalkenyl, etc.; R1R2C = atoms to form (substituted) cycloalkyl, cycloalkenyl, heterocyclyl; m, p = 0-3; n = 1-3; G = ER3; E = null, O, CO, CO2, CONH, NH, NHCONH, NHSO2NH, NHSO2; R3 = H, (substituted) aryl, heteroaryl, heterocyclyl, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl; A = R5, COR5, CONHR5, SO2R5, etc.; R5 = (substituted) aryl, heteroaryl, heterocyclyl, alkyl, cycloalkyl; B = H, Me; L, Z = H, (substituted) aryl, heteroaryl, heterocyclyl, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl], were prepared Thus, title compound (II) (solution phase preparation given) and other I inhibited HCV NS3 proteases with IC50 values in the range of <0.2 nM to about 50 nM.

IT 5854-52-4, 1-Adamantyl chloroformate

5854-52-4, 1-Adamantyl chloroformate
RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of hydroxyproline oxime ether-containing peptide analogs as hepatitis C NS3-NS4A protease inhibitors)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

C1-C-0

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1374788 CAPLUS

TITLE: Cu(I)-Catalyzed Intramolecular Cyclization of Alkynoic

Acids in Aqueous Media: A "Click Side Reaction"

AUTHOR(S): Mindt, Thomas L.; Schibli, Roger

CORPORATE SOURCE: Department of Chemistry and Applied Biosciences, ETH

Zurich, Zurich, 8093, Switz.

SOURCE: Journal of Organic Chemistry (2007), 72(26),

10247-10250

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

$$B_{nN}$$
 $X$ 
 $CO_2H$ 
 $N=N$ 
 $II$ 

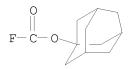
Alkynoic acids, in particular, 4-pentynoic acid derivs., undergo intramol. cyclizations to enol lactones under reaction conditions typically applied for the Cu(I)-catalyzed cycloaddn. of terminal alkynes and azides (click chemical). Starting from appropriate alkynoic acid derivs., e.g., HC.tplbond.C(CH2)nCO2H (n = 0, 1, 2, 3, 4), either enol lactones, e.g., I, or 1,2,3-triazole click products, e.g., II [X = (CH2)n, n = 0, 1, 3, 4], can be obtained selectively by Cu(I) catalysis in aqueous media.

IT 62087-82-5, 1-Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent)
(copper-catalyzed cyclization of alkynoic acids including propargyl
glycine derivs. in water to give 1,2,3-triazoles as click reaction
product or selectively prepared enol lactones)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

### Page 9

L4 ANSWER 4 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:935060 CAPLUS

DOCUMENT NUMBER: 147:288278

TITLE: Preparation of adamantane based molecular glass photoresists for sub-200 nm immersion lithography

INVENTOR(S): Tanaka, Shinji; Ober, Christopher K.

PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., USA; Idemitsu Kosan

Co., Ltd.

SOURCE: PCT Int. Appl., 41pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT :	NO.			KIN:	D	DATE		-	APPL	ICAT	ION 1	NO.		D.	ATE	
WO	2007	 0947	 84		A1	_	2007	0823	,	WO 2	006-	 US53	 78		2	0060	 216
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	R₩:	VN, AT, IS, CF, GM,	YU, BE, IT, CG, KE,	ZA, BG, LT, CI,	ZM, CH, LU, CM, MW,	ZW CY, LV, GA, MZ,	CZ, MC, GN, NA,	DE, NL, GQ,	DK, PL, GW,	EE, PT, ML,	ES, RO, MR,	FI, SE, NE,	FR, SI, SN,	GB, SK, TD,	GR, TR, TG,	HU, BF, BW,	IE, BJ, GH,

PRIORITY APPLN. INFO.:

WO 2006-US5378 20060216

AB Disclosed are glass photoresists generated from adamantane derivs. containing acetal and/or ester moieties as novel high-performance photoresist materials. Some of the disclosed adamantane-based glass resists have a tripodal structure and other disclosed adamantane-based glass resists include one or more cholic groups. The disclosed adamantane derivs. can be synthesized from starting materials which are com. available. By way of example only, one of many disclosed amorphous glass photoresists has the following structure: GR-5 Adamantane-1,3,5-triyltris(oxymethylene) tricholate.

IT 946578-92-3

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of adamantane based mol. glass photoresist for immersion lithog.)

RN 946578-92-3 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1,3,5-tris(chloromethoxy)- (CA INDEX NAME)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS

## RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN L4

2006:795713 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 145:211220

TITLE: Preparation of nandrolone  $17\beta$ -carbonates as

androgenic agents

INVENTOR(S): Blye, Richard P.; Kim, Hyun K.

PATENT ASSIGNEE(S): Government of the United States of America,

Represented by the Secretary, Department of Health and

Human Services, USA

SOURCE: PCT Int. Appl., 55pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

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		KG,	KΖ,	MD,	RU,	ΤJ,	TM										
AU	2006	2119	07		A1		2006	0810		AU 2	006-	2119	07		2	0060	124
CA	2596	884			A1		2006	0810		CA 2	006-	2596	884		2	0060	124
EP	1846	434			A1		2007	1024		EP 2	006-	7193	36		2	0060	124
	R:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,
		IS,	ΙΤ,	LI,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR	
PRIORIT	Y APP	LN.	INFO	.:						US 2	005-	6503	76P		P 2	0050	204
										WO 2	006-1	JS24:	36	1	W 2	0060	124
OTHER S	OURCE	(S):			MAR:	PAT	145:	2112	20								

GΙ

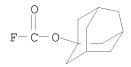
AB Nortestosterone carbonates of formula I [R = (substituted) alkyl, (substituted) cycloalkyl; R1 = H, alkyl; R2 = alkyl, halo] are prepd.as androgenic agents. Also disclosed are pharmaceutical compns. comprising such compds. and methods of use thereof. These compds. can find use in treating a number of diseases or conditions such as hypogonadism, hypergonadism, osteoporosis, and anemia, in providing hormonal therapy and contraception, as an anabolic agent, and in suppressing the release of hormones such as the LH. Thus, II was prepared, and showed 5 to 9 times the oral activity of methyltestosterone.

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of nandrolone  $17\beta$ -carbonates as androgenic agents)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:358243 CAPLUS

Correction of: 2005:481370

DOCUMENT NUMBER: 145:123920

Correction of: 143:26020

TITLE: Carbonic acid halides

AUTHOR(S): Senet, J.-P. G.

CORPORATE SOURCE: Science, Chemicals, SNPE Group, Le Bouchet Research

Center, Vert-le-Petit, 91710, Fr.

SOURCE: Science of Synthesis (2005), 18, 321-377

CODEN: SSCYJ9

PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review of preparation of carbonic acid halides including carbonic dihalides, haloformate esters, chlorothioformate S-esters, haloselenoformic Se-acids, carbamoyl halides, and P-halocarbonyl organophosphorous compds.

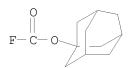
IT 62087-82-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of carbonic acid halides)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 7 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:340874 CAPLUS

DOCUMENT NUMBER: 144:373071

TITLE: Odorant-containing liquid fuel for fuel cell

INVENTOR(S):
Arimura, Tomoaki

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 9 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2006078767	A1	20060413	US 2005-220502		20050907
JP 2006100141	A	20060413	JP 2004-285454		20040929
PRIORITY APPLN. INFO.:			JP 2004-285454	Α	20040929
AD An adamant harring	a biah	odor diffuci	na rata a hiah tala:	rahl.	o footor o

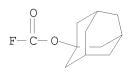
AB An odorant having a high odor diffusing rate, a high tolerable factor of dilution and a low percent adsorption is provided and has a pyridine derivative and a steric compound A liquid fuel for a fuel cell and a fuel cell are provided and each has the odorant.

IT 62087-82-5

RL: MOA (Modifier or additive use); USES (Uses) (odorant-containing liquid fuel for fuel cell)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 8 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:298199 CAPLUS

DOCUMENT NUMBER: 144:350970

TITLE: Cost-effective preparation of theanine without

extraction from green tea leaves

INVENTOR(S): Okada, Yukitaka; Koseki, Makoto; Aoi, Nobuyuki

PATENT ASSIGNEE(S): Taiyo Kagaku Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	NO.	KIND	DATE	APPLICATION NO.		DATE
					_	
JP 200	6083155	A	20060330	JP 2005-46543		20050223
PRIORITY AP	PLN. INFO.:			JP 2004-237825	Α	20040818
AB Theani	ne, useful as	a food	additive	(no data), is prepared	via	glutamic

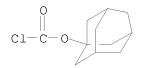
acids having adamantyloxycarbonyl-protected  $\alpha$ -amino group. Thus, glutamic acid was protected with isobutylene in the presence of concentrate H2SO4, protected with adamantyloxycarbonyl chloride in the presence of NaOH, treated with EtNH2.HCl in the presence of DCC, and deprotected with CF3CO2H to give L-theanine.

IT 5854-52-4, Adamantyloxycarbonyl chloride RL: RGT (Reagent); RACT (Reactant or reagent)

(preparation of theanine as food additive via glutamic acids having adamantyloxycarbonyl-protected  $\alpha$ -amino group)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 9 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:101708 CAPLUS

DOCUMENT NUMBER: 144:193289

TITLE: Fluorine-containing polymers with good transparency

for resist compositions and resist protective film

compositions

INVENTOR(S): Takebe, Yoko; Eda, Masataka; Yokokoji, Osamu; Sasaki,

Takashi

PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	TENT				KIN:	D	DATE		APPLICATION NO						D.	ATE	
	2006				A1	_	2006	0202							2	0050	722
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KM,	KP,	KR,	KΖ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
		NG,	NΙ,	NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,
		SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,
		ZA,	ZM,	ZW													
	RW:	ΑT,	BE,	ВG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,
		IS,	ΙT,	LT,	LU,	LV,	MC,	ΝL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	G₩,	ML,	MR,	ΝE,	SN,	TD,	ΤG,	BW,	GH,
		GM,	KΕ,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,
		KG,	KΖ,	MD,	RU,	ΤJ,	TM										
ΕP	1772	468			A1		2007	0411		EP 2	005-	7661	46		2	0050	722
	R:	ΑT,	BE,	ВG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
		IS,	ΙΤ,	LI,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR	
CN	1993	393			А		2007	0704		CN 2	005-	8002	5573		2	0050	722
US	2007	1548	44		A1		2007	0705		US 2	007-	6269	13		2	0070	125

KR 2007038533 A 20070410 KR 2007-702233 20070129
PRIORITY APPLN. INFO.: JP 2004-223363 A 20040730
JP 2004-340595 A 20041125
JP 2005-151028 A 20050524
WO 2005-JP13507 W 20050722

AB Title polymers are obtained by ring-forming polymerization of a fluorine-containing

diene CF2:CFCF2C(CF3) (OR1) (CH2)nCR2:CHR3, wherein R1 = H, C $\leq$ 20 alkyl, or (CH2)aCOOR4; R2, R3 = independently H or C $\leq$ 12 alkyl; R4 = H or C $\leq$ 20 alkyl; a = 0 or 1; and n = 0 or 2 (when n = 0,  $\geq$ 1 of R1, R2, R3  $\neq$  H). Thus, 254 g 68% 4,5-dichloro-1,1,1,3,3,4,5,5-octafluoro-2-pentanone solution was mixed with 1 M vinylmagnesium bromide at 0° for 60 min and at room temperature for 16 h, 234 g og the resulting 5,6-dichloro-4,4,5,6,6-pentafluoro-3-(trifluoromethyl)-1-hexen-3-ol was mixed with 47 g zinc and stirred, 20 g zinc was added therein and stirred for 36 h to give 4,4,5,6,6-pentafluoro-3-(trifluoromethyl)-1,5-hexadien-3-ol, 4.50 g of which was polymerized in the presence of 9.02 g 3% perfluorobutyryl peroxide at 20° for 18 h to give a cyclized fluoropolymer with weight average mol. weight 18,200, polydispersity 2.19, and

fluoropolymer with weight average mol. weight 18,200, polydispersity 2.19, and glass

transition temperature  $86^{\circ}$ , 1 g of the resulting polymer was dissolved in 10 g 2-heptanone, filtered, applied on a silicon wafer, and dried at  $100^{\circ}$  for 90 s to give a resist protective coating, showing light transmittance 99.3% at 193 nm and 79.4% at 157 nm.

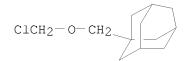
IT 720682-48-4DP, reaction products with hydroxy-containing cyclic fluoropolymers

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(fluorine-containing polymers with good transparency for resist compns. and resist protective film compns.)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1314037 CAPLUS

DOCUMENT NUMBER: 144:52079

TITLE: Photoresists comprising polymers derived from fluoroalcohol-substituted polycyclic monomers

INVENTOR(S): Crawford, Michael Karl; Tran, Hoang Vi; Schadt, Frank

L., III; Zumsteg, Frederick Claus, Jr.; Feiring,

Andrew Edward; Fryd, Michael

PATENT ASSIGNEE(S): E.I. Dupont De Nemours and Company, USA

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

#### PATENT INFORMATION:

	PATENT NO.					D	DATE			APPL	_	ION 1			D	ATE	
WO	2005 2005	1186	56				2005 2006	_							2	0050	517
WO		AE, CN, GE, LC, NG,	AG, CO, GH, LK, NI,	AL, CR, GM, LR, NO,	AM, CU, HR, LS, NZ,	AT, CZ, HU, LT, OM,	AU, DE, ID, LU, PG,	AZ, DK, IL, LV, PH,	DM, IN, MA, PL,	DZ, IS, MD, PT,	EC, JP, MG, RO,	EE, KE, MK, RU,	EG, KG, MN, SC,	ES, KM, MW, SD,	FI, KP, MX, SE,	GB, KR, MZ, SG,	GD, KZ, NA, SK,
	RW:	ZA, BW, AZ, EE, RO,	ZM, GH, BY, ES, SE,	ZW GM, KG, FI, SI,	KE, KZ, FR, SK,	LS, MD, GB, TR,	TN, MW, RU, GR, BF,	MZ, TJ, HU,	NA, TM, IE,	SD, AT, IS,	SL, BE, IT,	SZ, BG, LT,	TZ, CH, LU,	UG, CY, MC,	ZM, CZ, NL,	ZW, DE, PL,	AM, DK, PT,
MR, NE, SN, US 2007207413 PRIORITY APPLN. INFO.: OTHER SOURCE(S): GI					A1					US 2 US 2 WO 2	004-	5727	34P	:	P 2	0061 0040 0050	520

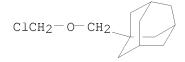
- AB The invention relates to unsatd. polycyclic compds. containing two fluoroalc. substituents. The invention also relates to homopolymers and copolymers derived from such unsatd. polycyclic compds. The copolymers are useful for photoimaging compns. and, in particular, photoresist compns. (pos.-working and/or neg.-working) for imaging in the production of semiconductor devices. The polymers are especially useful in photoresist compns. having high UV transparency (particularly at short wavelengths, e.g., 157 nm) which are useful as base resins in resists and potentially in many other applications. A typical polymer was manufactured by radical polymerization of 67.5 g fluorodiol I with 30 g tetrafluoroethylene in 1,1,3,3-pentafluorobutane.
- TT 720682-48-4DP, reaction products with polymers based on polycyclic monomers having 2 fluoroalc. groups

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photoresists comprising polymers derived from polycyclic monomers having 2 fluoroalc. groups)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)



L4 ANSWER 11 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1241028 CAPLUS

DOCUMENT NUMBER: 143:485833

TITLE: Adamantane derivative, method for producing same and

photosensitive material for photoresist

INVENTOR(S): Ito, Katsuki; Ono, Hidetoshi; Tanaka, Shinji;

Hatakeyama, Naoyoshi; Miyamoto, Shinji; Matsumoto,

Nobuaki

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

I	PATENT	NO.			KIN	D	DATE			APPL	ICAT	ION I	NO.		D.	ATE	
	WO 2005	51110	 97		A1		2005	 1124		WO 2	005-	 JP89	 43		2	0050	 517
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KM,	KP,	KR,	KΖ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
		NG,	NΙ,	NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,
	SL, SM, SX			SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,
		ZA,	ZM,	ZW													
	RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	MΖ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,
		AZ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IS,	ΙΤ,	LT,	LU,	MC,	NL,	PL,	PT,
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,
	MR, NE, SN			SN,	TD,	TG											
PRIOR:	ITY API	LN.	INFO	.:					1	JP 2	004-	1479	46		A 2	0040	518

OTHER SOURCE(S): MARPAT 143:485833

GI

 $^{Y}_{h}$   $^{R^{1}}_{|C}$   $^{C}$   $^{C}$   $^{C}$   $^{C}$   $^{C}$   $^{C}$   $^{R^{2}}$ 

AB Disclosed is an adamantane derivative which is useful as a monomer for a functional resin such as a photosensitive resin that is used in the fields of photolithog. Also disclosed are a method for efficiently producing such an adamantane derivative and a photosensitive material for photoresists containing a polymer obtained from such an adamantane derivative Specifically

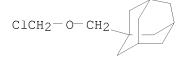
disclosed is an adamantane derivative which is characterized by having a structure represented by the following general formula I wherein R1 represents a hydrogen atom, a Me group or a trifluoromethyl group; Y represents an alkyl group having 1-10 carbon atoms, a halogen atom or a hydroxyl group, or alternatively two Ys may combine together to form =0, and a plurality of Ys may be the same as or different from one another; k represents an integer of 0-15; and m represents 0 or 1. Also specifically disclosed are a method for producing an adamantane derivative represented by the above general formula (I) which is characterized by reacting a halomethyl adamantyl (methyl) ether with a (meth)acrylic acid or an acid anhydride thereof, and a photosensitive material for photoresists containing a polymer obtained from such an adamantane derivative

IT 720682-48-4

RL: RCT (Reactant); RACT (Reactant or reagent)
 (adamantane derivative for photoresist composition)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1028860 CAPLUS

DOCUMENT NUMBER: 143:459814

TITLE: Enantioselective Addition of Vinylzinc Reagents to

Aldehydes Catalyzed by Modular Ligands Derived from

Amino Acids

AUTHOR(S): Richmond, Meaghan L.; Sprout, Christopher M.; Seto,

Christopher T.

CORPORATE SOURCE: Department of Chemistry, Brown University, Providence,

RI, 02912, USA

SOURCE: Journal of Organic Chemistry (2005), 70(22), 8835-8840

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 143:459814

AB A series of N-acylethylenediamine-based ligands were synthesized from Boc-protected amino acids. The ligands were screened for the ability to catalyze the asym. addition of vinylzinc reagents to aldehydes. Three sites of diversity on the ligands were optimized for this reaction using a positional scanning approach. The optimized ligand (S)-BocNHCH(CHMeEt)CH2NEt2 (I) was found to catalyze the formation of 15 different (E)-allylic alcs. with enantioselectivities of 52 to 91% and yields of 40 to 90%. This ligand was especially effective for the reaction of aromatic aldehydes with vinylzinc reagents derived from bulky terminal alkynes. I catalyzed the addition of (E)-(3,3-dimethylbut-1-enyl)(ethyl)zinc to 2-naphthaldehyde to give (R,E)-4,4-dimethyl-1-(naphthalene-1-yl)pent-2-en-1-ol in 89% ee. The ee of this product could be increased to 97% through a single recrystn.

### Page 18

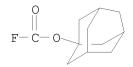
IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(enantioselective addition of vinylzinc reagents to aldehydes catalyzed by modular ligands derived from amino acids)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:982948 CAPLUS

DOCUMENT NUMBER: 143:275623

TITLE: Photoresists having excellent dry etching resistance

and high sensitivity and manufacture of semiconductor

devices therewith

INVENTOR(S): Otoguro, Akihiko; Irie, Shigeo; Fujii, Kiyoshi;

Takebe, Yoko; Eda, Masataka; Yokokoji, Osamu

PATENT ASSIGNEE(S): Semiconductor Leading Technologies Inc., Japan; Asahi

Glass Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

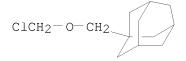
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PRIO AB	JP 2005241737 RITY APPLN. INFO.: The photoresists conception of the photoresist of the p	mprise CHR2 [R yl; Q = kyl, C≤ ], (CH2 sensiti The ph rough r ss invo	cyclic polym 1, R2 = H, C (CH2)nC(CF3 6 alkoxycarb )mCO2R5 (m = ve acid gene otoresists a eticles, bak lving dry et	JP 2004-48008 JP 2004-48008 erization products of f $\leq 3$ (fluoro)alkyl, C $\leq 6$ )20R3 [n = 0, 1; R3 = H onyl, CH2R4 (R4 = 0, 1; R5 = H, C $\leq 5$ rators, organic solvent re pasted on substrates ed, and developed to fo ching of wafers through	, etheric s, and , exposed to rm patterns.
ΙT	720682-48-4				

RL: RCT (Reactant); RACT (Reactant or reagent)

(F2 laser-sensitive photoresists containing cyclopolymd. fluorodienes and having good dry etching resistance)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)



L4 ANSWER 14 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:962319 CAPLUS

DOCUMENT NUMBER: 143:257069

TITLE: Polymer compound, photoresist composition containing

such polymer compound, and method for forming resist

pattern

INVENTOR(S): Ogata, Toshiyuki; Matsumaru, Syogo; Kinoshita, Yohei;

Hada, Hideo; Shiono, Daiju; Shimizu, Hiroaki; Kubota,

Naotaka

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 91 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

WO 2005080473  A1 20050901  WO 2005-JP1228  20050128  W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  JP 2006096965  A 20060413  JP 2004-316960  20041029  EP 1717261  R: DE, FR  CN 1918217  A 20070221  CN 2005-80004964  20050128  PRIORITY APPLN. INFO::  JP 2004-45522  A 20040428	PAT	PATENT NO.					D -	DATE				LICAT					ATE	
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  JP 2006096965  A 20060413  JP 2004-316960  20041029  EP 1717261  A1 20061102  EP 2005-709454  20050128  R: DE, FR  CN 1918217  A 20070221  CN 2005-80004964  20050128  PRIORITY APPLN. INFO.:	WO	2005	0804	 73				2005	0901								 0050	128
GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  JP 2006096965  A 20060413 JP 2004-316960 20041029 EP 1717261 A1 20061102 EP 2005-709454 20050128 R: DE, FR CN 1918217 A 20070221 CN 2005-80004964 20050128 PRIORITY APPLN. INFO:: JP 2004-45522 A 20040220		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BE	3, BG,	BR,	BW,	BY,	BZ,	CA,	CH,
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NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  JP 2006096965 A 20060413 JP 2004-316960 20041029 EP 1717261 A1 20061102 EP 2005-709454 20050128 R: DE, FR CN 1918217 A 20070221 CN 2005-80004964 20050128 PRIORITY APPLN. INFO:: JP 2004-45522 A 20040220			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	ΙS	S, KE,	KG,	KP,	KR,	KΖ,	LC,	LK,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  JP 2006096965 A 20060413 JP 2004-316960 20041029 EP 1717261 R: DE, FR CN 1918217 A 20070221 CN 2005-80004964 20050128 PRIORITY APPLN. INFO:: JP 2004-45522 A 20040220			LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	Mk	MN,	MW,	MX,	MZ,	NA,	NI,	NO,
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AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  JP 2006096965 A 20060413 JP 2004-316960 20041029 EP 1717261 A1 20061102 EP 2005-709454 20050128 R: DE, FR CN 1918217 A 20070221 CN 2005-80004964 20050128 PRIORITY APPLN. INFO:: JP 2004-45522 A 20040220			TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ	Z, VC,	VN,	YU,	ZA,	ZM,	ZW	
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  JP 2006096965 A 20060413 JP 2004-316960 20041029  EP 1717261 A1 20061102 EP 2005-709454 20050128  R: DE, FR  CN 1918217 A 20070221 CN 2005-80004964 20050128  PRIORITY APPLN. INFO:: JP 2004-45522 A 20040220		RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SI	), SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  JP 2006096965 A 20060413 JP 2004-316960 20041029  EP 1717261 A1 20061102 EP 2005-709454 20050128  R: DE, FR  CN 1918217 A 20070221 CN 2005-80004964 20050128  PRIORITY APPLN. INFO:: JP 2004-45522 A 20040220		AZ, BY, F			KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑI	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
MR, NE, SN, TD, TG  JP 2006096965 A 20060413 JP 2004-316960 20041029  EP 1717261 A1 20061102 EP 2005-709454 20050128  R: DE, FR  CN 1918217 A 20070221 CN 2005-80004964 20050128  PRIORITY APPLN. INFO:: JP 2004-45522 A 20040220			EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	ΙS	S, IT,	LT,	LU,	MC,	NL,	PL,	PT,
JP 2006096965 A 20060413 JP 2004-316960 20041029 EP 1717261 A1 20061102 EP 2005-709454 20050128 R: DE, FR CN 1918217 A 20070221 CN 2005-80004964 20050128 PRIORITY APPLN. INFO.: JP 2004-45522 A 20040220			RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG	G, CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,
EP 1717261 A1 20061102 EP 2005-709454 20050128 R: DE, FR CN 1918217 A 20070221 CN 2005-80004964 20050128 PRIORITY APPLN. INFO:: JP 2004-45522 A 20040220																		
R: DE, FR CN 1918217 A 20070221 CN 2005-80004964 20050128 PRIORITY APPLN. INFO.: JP 2004-45522 A 20040220	JP	2006	0969	65		Α		2006	0413		JΡ	2004-	3169	60		2	0041	029
CN 1918217 A 20070221 CN 2005-80004964 20050128 PRIORITY APPLN. INFO.: JP 2004-45522 A 20040220	EP	1717	261			A1		2006	1102		ΕP	2005-	7094	54		2	0050	128
PRIORITY APPLN. INFO.: JP 2004-45522 A 20040220		R:	DE,	FR														
	CN	1918	217			А		2007	0221		CN	2005-	8000	4964		2	0050	128
JP 2004-134585 A 20040428	RIORIT:	Y APP	LN.	INFO	.:						JΡ	2004-	4552	2		A 2	0040	220
											JΡ	2004-	1345	85		A 2	0040	428
JP 2004-179475 A 20040617											JΡ	2004-	1794	75		A 2	0040	617
JP 2004-252474 A 20040831											JΡ	2004-	2524	74	-	A 2	0040	831
JP 2004-316960 A 20041029											JΡ	2004-	3169	60		A 2	0041	029
WO 2005-JP1228 W 20050128											WO	2005-	JP12:	28	,	W 2	0050	128

AB Disclosed is a polymer compound which enables to obtain a highly sensitive photoresist composition which forms a fine pattern with excellent resolution and

good rectangular shape and is capable of obtaining good resist characteristics even when the acid generated by an acid generator is weak. Also disclosed are a photoresist composition using such a polymer compound and

method for forming a resist pattern using such a photoresist composition. The photoresist composition and resist pattern-forming method use a polymer compound

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having an alkali-soluble group (i) which is at least one substituent selected from an alc. hydroxyl group, a carboxyl group and a phenolic hydroxyl group and protected by an acid-cleavable dissoln. inhibiting group (ii) represented by general formula -CH2-O-(-CH2)n-R1 wherein R1 represents an alicyclic group having 20 or less carbon atoms which may have an oxygen, nitrogen, sulfur or halogen atom; and n represents 0 or an integer of 1-5. 720682-48-4P

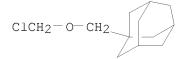
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(polymer compound, photoresist composition containing such polymer compound, and  $% \left( 1\right) =\left( 1\right) +\left( 1\right) +\left$ 

method for forming resist pattern)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:591346 CAPLUS

DOCUMENT NUMBER: 143:77880

TITLE: Preparation of (halomethoxyalkyl)adamantanes INVENTOR(S): Ono, Hidetoshi; Hori, Kenji; Tanaka, Shinji;

Hatakeyama, Naoyoshi

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

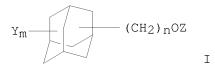
CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005179300	A	20050707	JP 2003-425065	20031222
PRIORITY APPLN. INFO.:			JP 2003-425065	20031222
OTHER SOURCE(S):	CASRE	ACT 143:77880	); MARPAT 143:77880	



AB Title compds. I [Y = C1-10 (halo)alkyl, halo, heteroatom-containing group; Z = CH2X; X = halo; m = 0-15; n = 0-10] are prepared by reaction of I (Z = H)

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with HCHO and hydrogen halides using solvents showing water solubility (at reaction temperature)  $\leq 5$  weight%. 1-Adamantylmethanol was treated with paraformaldehyde and HCl in CH2Cl2 at 30° for 2 h to give 1-(chloromethoxymethyl)adamantane with 99% selectivity.

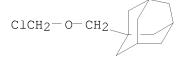
IT 720682-48-4P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of (halomethoxyalkyl) adamantanes from adamantanealkanols, HCHO, and hydrogen halides)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)



L4 ANSWER 16 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:284341 CAPLUS

DOCUMENT NUMBER: 143:132933

TITLE: Application of the extended Grunwald-Winstein equation

to solvolyses of n-propyl chloroformate

AUTHOR(S): Kyong, Jin Burm; Won, Hoshik; Kevill, Dennis N. CORPORATE SOURCE: Department of Chemistry, Hanyang University,

Kyunggi-Do, 425-791, S. Korea

SOURCE: International Journal of Molecular Sciences (2005),

6(1-2), 87-96

CODEN: IJMCFK; ISSN: 1422-0067

URL: http://www.mdpi.org/ijms/papers/i6010087.pdf Molecular Diversity Preservation International

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

AB Application of the extended Grunwald-Winstein equation to solvolyses of Pr chloroformate in a variety of pure and binary solvents indicates an addition-elimination pathway in the majority of the solvents but an ionization pathway in the solvents of highest ionizing power and lowest nucleophilicity. For methanolysis, a solvent deuterium isotope effect of 2.17 is compatible with the incorporation of general-base catalysis into the substitution process. Activation parameters are consistent with the duality of mechanism. Very modest pos. salt effects are observed on adding chloride or bromide salts to the ethanolysis.

IT 5854-52-4, 1-Adamantyl chloroformate

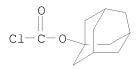
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(application of the extended Grunwald-Winstein equation to the solvolysis of alkyl chloroformates)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

PUBLISHER:



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1079728 CAPLUS

DOCUMENT NUMBER: 142:38661

TITLE: Production of adamantyl vinyl ethers useful as

monomers for photosensitive resins

INVENTOR(S): Hatakeyama, Naoyoshi; Tanaka, Shinji; Ono, Hidetoshi;

Kodoi, Kouichi

PATENT ASSIGNEE(S): Idemitsu Petrochemical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
EP 1486480	A1	20041215	EP 2004-13231	20040604	
R: AT, BE, CH,	DE, DK	, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,	
IE, SI, LT,	LV, FI	, RO, MK,	CY, AL, TR, BG, CZ,	EE, HU, PL, SK, HR	
JP 2005023066	A	20050127	JP 2004-159276	20040528	
KR 2004105614	A	20041216	KR 2004-41664	20040608	
US 2005004391	A1	20050106	US 2004-862423	20040608	
PRIORITY APPLN. INFO.:			JP 2003-163320	A 20030609	
OTHER SOURCE(S):	MARPAT	142:38661			
O.T.					

GΙ

AB An adamantyl vinyl ether has the general formula (I), where each X independently represents hydrogen, halogen, C1-C10-alkyl optionally containing a heteroatom, hydroxy, C1-C8-alkoxy, carboxy, COOR with R being C1-C8-alkyl, or a keto group formed by two X's; each R1, R2, R3, R4 independently represents hydrogen, halogen, or C1-C10-alkyl optionally containing a heteroatom; each R5 independently represents hydrogen, halogen,

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or C1-C3-alkyl optionally containing a heteroatom; m and n are independently integers from 0 to 10; a is an integer from 1 to 4; b is an integer from 12 to 15; a+b is 16. The following structures are excluded: a structure in which only 1 to 3 vinyloxy groups are bonded to a bridge head position of the adamantyl group, a structure in which only one vinyloxymethyl group, vinyloxyethyl group or vinyloxypropyl group is bonded to a bridge head position of the adamantyl group, and a structure in which only a vinyloxy group and a hydroxy group are bonded to a bridge head position of the adamantyl group. The adamantyl vinyl ethers are useful as monomers for production of functional resins, such as photosensitive resins for photolithog., fireproofing additives, medical and agricultural intermediates. Thus, 1-[(2-chloroethoxy)methoxy]adamantane was produced in 83.3% yield by refluxing 2-chloroethyl chloromethyl ether (1.55 g, 12 mmol) and 1-adamantanol (1.52 g, 10 mmol) in THF in the presence of triethylamine (1.52 g, 15 mmol) for 8 h. An adamantyl vinyl ether, 1-[(vinyloxy)methoxy]adamantane, was produced in 85.9% yield by refluxing 1-[(2-chloroethoxy)methoxy]adamantane (2.45 g, 10 mmol) and potassium tert-butoxide (1.68 g, 15 mmol) in THF for 2 h.

IT 720682-48-4P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(production of adamantyl vinyl ethers useful as monomers for photosensitive resins)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)

C1CH2-O-CH2

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:973343 CAPLUS

DOCUMENT NUMBER: 142:113591

TITLE: Second Generation Fluorous DEAD Reagents Have Expanded

Scope in the Mitsunobu Reaction and Retain Convenient

Separation Features

AUTHOR(S): Dandapani, Sivaraman; Curran, Dennis P.

CORPORATE SOURCE: Department of Chemistry, University of Pittsburgh,

Pittsburgh, PA, 15260, USA

SOURCE: Journal of Organic Chemistry (2004), 69(25), 8751-8757

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 142:113591

AB A first generation fluorous analog of di-Et azodicarboxylate (DEAD) [F3C(CF2)5CH2CH2O2CN:NCO2CH2CH2(CF2)5CF3, F-DEAD-1] gives lower yields of products than diisopropyl azodicarboxylate (DIAD) in Mitsunobu reactions involving hindered alcs. or less acidic pronucleophiles such as phenols. A variety of fluoroalkyl hydrazinedicarboxylates are prepared and their retention times on fluorous resin-based HPLC are determined; two of the tested

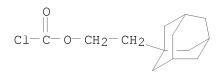
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hydrazinecarboxylates are converted to the corresponding azodicarboxylate reagents, F-DEAD-2 [C8F17(CH2)302CN:NC02CMe3] and F-DEAD-3 [C6F13(CH2)302CN:NC02(CH2)3C6F13]. Mitsunobu reactions using either F-DEAD-2 and F-DEAD-3 and the fluorinated triphenylphosphine 4-Ph2PC6H4CH2CH2(CF2)7CF3 (F-TPP) are effective for a variety of alcs. and nucleophiles such as phenols, sulfonamides, and carboxylic acids; the yields of the corresponding Mitsunobu reactions using DIAD and triphenylphosphine give products in comparable or higher yields. Fluorous coproducts formed in reactions with F-DEAD-2 and F-TPP can be separated easily by fluorous chromatog., while Mitsunobu reactions using F-DEAD-3 and F-TPP as reagents can be separated by fluorous solid phase extraction 766546-16-1

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation and fluorous HPLC retention times of fluoroalkyl
 hydrazinedicarboxylates and their use in the preparation of
 second-generation fluorous azodicarboxylates for Mitsunobu reactions)
766546-16-1 CAPLUS

CN Carbonochloridic acid, 2-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:874068 CAPLUS

DOCUMENT NUMBER: 141:372754

TITLE: Positive-working chemical amplification resist

composition and manufacture thereof

INVENTOR(S): Kanna, Shinichi; Mizutani, Kazuyoshi; Sasaki, Tomoya

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 77 pp.

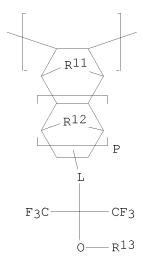
CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004294688 PRIORITY APPLN. INFO.:	А	20041021	JP 2003-85830 JP 2003-85830	20030326 20030326
GT				



I

AB Disclosed is the pos.-working resist composition comprising (a) a resin having F in the backbone chain, (b) a resin represented by I (R11,R12 = methylene, O; R13 = H, organic group; L = divalent bonding group; and P = 0, 1), and (c) a photoacid.

IT 777866-01-0

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(pos.-working chemical amplification resist composition)

RN 777866-01-0 CAPLUS

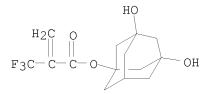
CN 2-Propenoic acid, 2-(trifluoromethyl)-, 3,5-dihydroxytricyclo[3.3.1.13,7]d ec-1-yl ester, polymer with 3-[(trifluoroethenyl)oxy]- $\alpha$ , $\alpha$ -bis(trifluoromethyl)tricyclo[3.3.1.13,7]decane-1-methanol (9CI) (CA INDEX NAME)

CM 1

CRN 685522-94-5 CMF C15 H15 F9 O2

CM 2

CRN 521913-16-6 CMF C14 H17 F3 O4



ANSWER 20 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:866544 CAPLUS

DOCUMENT NUMBER: 142:55726

TITLE: Solvent-Equilibrated Homoadamantyl Chloride Ion Pairs

from Chloroformate or Oxachlorocarbene Fragmentations

AUTHOR(S): Moss, Robert A.; Tian, Jingzhi; Sauers, Ronald R.

Department of Chemistry and Chemical Biology, Rutgers, The State University of New Jersey, New Brunswick, NJ, CORPORATE SOURCE:

08903, USA

SOURCE: Organic Letters (2004), 6(23), 4293-4296

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 142:55726

Fragmentations of 3-homoadamantyl chloroformate and 3-

homoadamantyloxychlorocarbene produce identical ion pairs as

product-determining intermediates.

5854-52-4, 1-Adamantyl chloroformate

RL: CPS (Chemical process); PEP (Physical, engineering or chemical

process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant

or reagent)

(solvent-equilibrated homoadamantyl chloride ion pairs from

chloroformate or oxachlorocarbene fragmentations)

5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 15 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 21 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:725497 CAPLUS

DOCUMENT NUMBER: 141:395095

TITLE: Solvent-Equilibrated Ion Pairs from Carbene

Fragmentation Reactions

Page 27

AUTHOR(S): Moss, Robert A.; Zheng, Fengmei; Fede, Jean-Marie;

Johnson, Lauren A.; Sauers, Ronald R.

CORPORATE SOURCE: Department of Chemistry and Chemical Biology, Rutgers

The State University of New Jersey, New Brunswick, NJ,

08903, USA

SOURCE: Journal of the American Chemical Society (2004),

126(39), 12421-12431

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

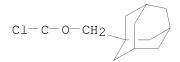
OTHER SOURCE(S): CASREACT 141:395095

[R+ OC C1-] ion pairs were generated in methanol/dichloroethane solns., with R+ as the 1-bicyclo[2.2.2]octyl, 1-adamantyl, or 3-homoadamantyl cation. Ion pairs were produced either by the direct fragmentation of alkoxychlorocarbenes (ROCCl), with R = 1-bicyclo[2.2.2]octyl, 1-adamantyl, or 3-homoadamantyl, or by the ring expansion-fragmentation of R'CH2OCCl, with R' = 1-norbornyl, 3-noradamantyl, or 1-adamantyl. Correlations of the [ROMe]/[RC1] product ratios as a function of the mole fraction of MeOH in dichloroethane showed that the homoadamantyl chloride ion pairs, produced by either the direct or ring expansion-fragmentations, were identical, solvent- and anion-equilibrated, and precursor independent. Laser flash photolysis expts. gave 20-30 ps as the time required for solvent equilibration and precursor independence. Methanol/chloride selectivities of the (less-stable) 1-adamantyl chloride and 1-bicyclo[2.2.2]octyl chloride ion pairs were not independent of their ROCC1 or R'CH2OCC1 precursors. Computational studies provided transition states for the fragmentations and for the structures of the ion pairs. ΙT

IT 182802-27-3 433713-18-9
 RL: CPS (Chemical process); FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent) (solvent-equilibrated ion pairs from carbene fragmentation reactions)

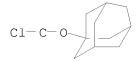
RN 182802-27-3 CAPLUS

CN Methylene, chloro(tricyclo[3.3.1.13,7]dec-1-ylmethoxy)- (9CI) (CA INDEX NAME)



RN 433713-18-9 CAPLUS

CN Methylene, chloro(tricyclo[3.3.1.13,7]dec-1-yloxy)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 22 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:641925 CAPLUS

DOCUMENT NUMBER: 141:313663

TITLE: Separation tagging with cyclodextrin-binding groups:

Mitsunobu reactions with bis(2-(1-adamantyl)ethyl) azodicarboxylate (BadEAD) and bis(1-adamantylmethyl)

azodicarboxylate (BadMAD)

AUTHOR(S): Dandapani, Sivaraman; Newsome, Jeffery J.; Curran,

Dennis P.

CORPORATE SOURCE: Department of Chemistry, University of Pittsburgh,

Pittsburgh, PA, 15260, USA

SOURCE: Tetrahedron Letters (2004), 45(35), 6653-6656

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:313663

AB A new method for separation tagging with cyclodextrin-binding groups is introduced and is exemplified in the context of the Mitsunobu reaction with adamantyl tags. HPLC expts. showed that mols. containing adamantyl groups were especially well retained on Sumichiral OA7500  $\beta$ -methylated cyclodextrin bonded silica columns relative to many other types of mols. Two new Mitsunobu reagents, bis(1-adamantylmethyl) azodicarboxylate (BadMAD) and bis(2-(1-adamantyl)ethyl) azodicarboxylate (BadEAD), were prepared, used in typical Mitsunobu reactions and separated with both  $\beta$ -methylated cyclodextrin bonded silica and standard silica.

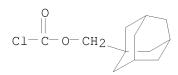
IT 21317-84-0P 766546-16-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(Mitsunobu reactions with bis(2-(1-adamantyl)ethyl) azodicarboxylate and bis(1-adamantylmethyl) azodicarboxylate and separation tagging with cyclodextrin-binding groups)

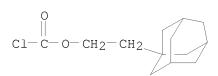
RN 21317-84-0 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-ylmethyl ester (CA INDEX NAME)



RN 766546-16-1 CAPLUS

CN Carbonochloridic acid, 2-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS

#### RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:635351 CAPLUS

DOCUMENT NUMBER: 141:424972

TITLE: A new monocyclic fluoropolymer for 157-nm photoresists

AUTHOR(S): Sasaki, Takashi; Takebe, Yoko; Eda, Masataka; Yokokoji, Osamu; Irie, Shigeo; Otoguro, Akihiko;

Fujii, Kiyoshi; Itani, Toshiro

CORPORATE SOURCE: Research Center, Asahi Glass Co., Ltd., Yokohama,

221-8755, Japan

SOURCE: Journal of Photopolymer Science and Technology (2004),

17(4), 639-644

CODEN: JSTEEW; ISSN: 0914-9244

PUBLISHER: Technical Association of Photopolymers, Japan

DOCUMENT TYPE: Journal LANGUAGE: English

We earlier developed a series of fluoropolymers (FPRs) for use as first-generation 157-nm photoresist polymers. These FPRs have a partially fluorinated monocyclic structure and provide excellent transparency. However, their etching resistance is low (half that of conventional KrF resists) and an insufficient dissoln. rate in tetramethylammonium hydroxide (TMAH) solution To improve the characteristics of these polymers, while retaining high transparency, we had to redesign the main chain fluoropolymer structure. In this paper, we describe a new monocyclic fluoropolymer structure for a second-generation 157-nm photoresist polymer. This structure also has a fluorine atom in the polymer main chain, as well as a fluoro-containing acidic alc. group. We synthesized two types of fluoropolymers, ASF-1 and ASF-2. We found that ASF-1 had transparency of  $0.18~\mu\text{m}-1$ , better than that of the FPRs, and the etching resistance was improved. Unfortunately, the dissoln. rate was poor. On the other hand, ASF-2 showed even better transparency of 0.1 $\mu\text{m-1}$ , improved etching resistance, and a dissoln. rate of more than 600 nm/s, which is sufficient for use as a resist. The introduction of a protecting group (e.g., the methoxymethyl or adamantylmethoxymethyl group) to the hydroxyl group of ASF-2 can be done after the polymerization reaction. Using partially protected ASF-2 with an appropriate protecting group, we were able to fabricate a sub-60-nm line-and-space pattern.

720682-48-4DP, reaction products with fluoropolymer, sodium salt RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(preparation and properties of monocyclic fluoropolymers for 157-nm photoresists)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)

C1CH2-0-CH2

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 24 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

# Page 30

GΙ

ACCESSION NUMBER: 2004:565183 CAPLUS

DOCUMENT NUMBER: 141:107948

TITLE: Adamantane derivatives and process for producing them

INVENTOR(S): Tanaka, Shinji; Ono, Hidetoshi; Kodoi, Kouichi;

Hatakeyama, Naoyoshi

PATENT ASSIGNEE(S): Idemitsu Petrochemical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	NO.	KIND	DATE	APPLICATION NO.		DATE		
WO 2004 W:	 058675 KR, US	A1	20040715	WO 2003-JP16258		20031218		
RW:	AT, BE, BG,	CH, CY	, CZ, DE,	DK, EE, ES, FI, FR,	GB,	GR, HU, IE,		
	IT, LU, MC,	NL, PT	, RO, SE,	SI, SK, TR				
JP 2004	217627	A	20040805	JP 2003-414445		20031212		
EP 1577	285	A1	20050921	EP 2003-780891		20031218		
R:	AT, BE, CH,	DE, DK	, ES, FR,	GB, GR, IT, LI, LU,	NL,	SE, MC, PT,		
	IE, SI, FI,	RO, CY	, TR, BG,	CZ, EE, HU, SK				
US 2006	149073	A1	20060706	US 2005-540547		20051213		
PRIORITY APP	LN. INFO.:			JP 2002-374659	Ā	A 20021225		
				WO 2003-JP16258	Ī	W 20031218		
OTHER SOURCE	(S):	MARPAT	141:1079	48				

AB Compds. I and II (R1-R4 = H, halo, C1-10 alkyl, C1-10 haloalkyl; X = halo; Y = C1-10 alkyl, C1-10 haloalkyl, halo, heteroatom-containing group; M = 0-15;

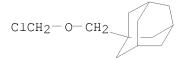
n = 0-10; wherein in I, the case where both of m and n are 0 and both of R3 and R4 are H is excluded; in I and II, two Y groups may form :0 group), such as chloromethyl adamantylmethyl ether and chloromethyl 4-oxo-2-adamantyl ether, are prepared. The adamantane derivs. are useful as modifiers for photoresist resins in the field of photolithog., dry-etching resistance improvers, intermediates for agricultural chems. and medicines, and other various industrial products.

IT 720682-48-4P

RL: IMF (Industrial manufacture); PREP (Preparation) (preparation of adamantane derivs.)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)



L4 ANSWER 25 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:515466 CAPLUS

DOCUMENT NUMBER: 141:71301

TITLE: Process for preparation of fluorinated adamantane

derivatives

INVENTOR(S): Okazoe, Takashi; Watanabe, Kunio; Ito, Masahiro;

Murotani, Eisuke

PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan

SOURCE: PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

	TENT				KIN	D	DATE							DATE				
					A1 2004062		0624	WO 2003-JP15879										
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	GE,	
		GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KR,	KΖ,	LC,	LK,	LR,	
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	ΝI,	NO,	NZ,	OM,	
		PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ΤJ,	TM,	TN,	
		TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW				
	RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	
		BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	
		ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	
		TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	$\mathrm{ML}_{,}$	MR,	NE,	SN,	TD,	ΤG
CA	CA 2509158 A1 20040624			0624	CA 2003-2509158 2003121					211								
ΑU	AU 2003289036 A1 2		20040630 AU 2003-289036						20031211									
EP	1574	497			A1	20050914			EP 2003-778821				20031211					
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,	
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK		
CN	1726	182			Α		20060125			CN 2003-80105893				20031211				
US	2005	2777	85		A1		2005	1215 US 2005-143978 2005			0050	603						
US	7314	952			В2		2008	0101										

US 2005288528 A1 20051229 US 2005-153438 20050616
PRIORITY APPLN. INFO.:

DP 2002-359471 A 20021211
WO 2003-JP15879 W 20031211
JP 2004-178330 A 20040616
JP 2004-178331 A 20040616
US 2005-143978 A2 20050603

OTHER SOURCE(S): MARPAT 141:71301

GΙ

AB Title compds. represented by the general formula A(-G-Q-R)n and Af(-Gf-Q-Rf)n, wherein A is an n-valent group derived from adamantine by the removal of n hydrogen atoms in which the residual hydrogen atoms may be each replaced by alkyl; R is a fluorine-containing monovalent organic group; n

is an integer of 1 to 4; G is -CH- or a single bond; Q is -CO2- or -OCO-; Af is an n-valent group as defined for A wherein at least one of the hydrogen atoms forming C-H linkages is replaced by fluorine; Rf is a fluorine-containing monovalent organic group; and Gf is -CF- or a single bond, are prepared For example, esterification of 1-adamantylmethanol with FCOCF(CF3)CF2CF2CF3, followed by fluorination and thermolysis, gave I. Thus, this invention provides the methods of the production of fluorinated adamantane derivs. which are excellent in etching resistance and useful as photolithog. material.

IT 709615-36-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of fluorinated adamantane derivs.)

RN 709615-36-1 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid,
2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluoro-, 1,1,2,3,3,3-hexafluoro-2[1,1,2,3,3,3-hexafluoro-2-(heptafluoropropoxy)propoxy]propyl ester (9CI)
(CA INDEX NAME)

L4 ANSWER 26 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:491214 CAPLUS

DOCUMENT NUMBER: 142:472501

TITLE: A new monocyclic fluoropolymer structure for 157-nm

photoresists

AUTHOR(S): Takebe, Yoko; Eda, Masataka; Okada, Shinji; Yokokoji,

Osamu; Irie, Shigeo; Otoguro, Akihiko; Fujii, Kiyoshi;

Itani, Toshiro

CORPORATE SOURCE: Research Center, Asahi Glass Co., Ltd., Kanagawa-ken,

221-8755, Japan

SOURCE: Proceedings of SPIE-The International Society for

Optical Engineering (2004), 5376(Pt. 1, Advances in

Resist Technology and Processing XXI), 151-158

CODEN: PSISDG; ISSN: 0277-786X

PUBLISHER: SPIE-The International Society for Optical Engineering

DOCUMENT TYPE: Journal LANGUAGE: English

AΒ We earlier developed a series of fluoropolymers (FPRs) for use as first-generation 157-nm photoresist polymers. These FPRs have a partially fluorinated monocyclic structure and provide excellent transparency. However, their etching resistance is low (half that of conventional KrF resists) and an insufficient dissoln. rate in tetramethylammonium hydroxide (TMAH) solution To improve the characteristics of these polymers, while retaining high transparency, we had to redesign the main chain fluoropolymer structure. In this paper, we describe a new monocyclic fluoropolymer structure for a second-generation 157-nm photoresist polymer. This structure also has a fluorine atom in the polymer main chain, as well as a fluoro-containing acidic alc. group. We synthesized two types of fluoropolymers, ASF-1 and ASF-2. We found that ASF-1 had transparency of 0.18  $\mu$ m-1, better than that of the FPRs, and the etching resistance was improved. Unfortunately, the dissoln. rate was poor. On the other hand, ASF-2 showed even better transparency of 0.1  $\mu\text{m--1},$  improved etching resistance, and a dissoln. rate of more than 600 nm/s, which is sufficient for use as a resist. The introduction of a protecting group (e.g., the methoxymethyl or adamantylmethoxymethyl group) to the hydroxyl group of ASF-2 can be done after the polymerization reaction. Using partially protected ASF-2 with an appropriate protecting group, we were able to fabricate a sub-60-nm line-and-space pattern.

IT 720682-48-4DP, reaction products

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (monocyclic fluoropolymer for 157-nm photoresists)

### Page 34

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)

C1CH2-0-CH2

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 27 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:389970 CAPLUS

DOCUMENT NUMBER: 140:383121

TITLE: F2 excimer laser-sensitive positive photoresist

compositions with good coatability and dry etchability

INVENTOR(S): Kanna, Shinichi; Mizutani, Kazuyoshi; Sasaki, Tomoya

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004138887	A	20040513	JP 2002-304421	20021018
PRIORITY APPLN. INFO.:			JP 2002-304421	20021018

AB The photoresist compns. sensitive to vacuum UV ( $\leq 160$  nm) contain resins comprising 1st repeating units CF2C(XZ)F (X = 0, S; Z = organic group with no acid decomposability) and 2nd repeating units having groups that are converted to alkali-soluble groups by acid decomposition so as to increase solubility of the resins in alkali developers. The resins may further contain cycloolefin units.

IT 685523-13-1 685523-15-3

RL: TEM (Technical or engineered material use); USES (Uses)

(F2 excimer laser-sensitive pos. photoresists with good coatability and dry etchability)  $\frac{1}{2}$ 

RN 685523-13-1 CAPLUS

CN Carbonic acid, 1-(bicyclo[2.2.1]hept-5-en-2-ylmethyl)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl 1,1-dimethylethyl ester, polymer with 1-[(trifluoroethenyl)oxy]tricyclo[3.3.1.13,7]decane (9CI) (CA INDEX NAME)

CM 1

CRN 685522-91-2 CMF C12 H15 F3 O Page 35

$$\begin{array}{c} CF_2 \\ F-C-O \end{array}$$

CM 2

CRN 196314-63-3 CMF C16 H20 F6 O3

RN 685523-15-3 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with 2-methyl-2-propenenitrile and 3-[(trifluoroethenyl)oxy]- $\alpha$ ,  $\alpha$ -bis(trifluoromethyl)tricyclo[3.3 .1.13,7]decane-1-methanol (9CI) (CA INDEX NAME)

CM 1

CRN 685522-94-5 CMF C15 H15 F9 O2

CM 2

CRN 365568-55-4 CMF C13 H17 F3 O2

CM 3

CRN 126-98-7 CMF C4 H5 N

$$^{\text{CH}_2}_{\parallel}$$
 $^{\text{H}_3\text{C}-\text{C}-\text{C}}_{\parallel}$ 
 $^{\text{N}}$ 

L4 ANSWER 28 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:61350 CAPLUS

DOCUMENT NUMBER: 140:253465

TITLE: Nucleophilic Addition to Electron-Rich

Heteroaromatics: Dearomatizing Anionic Cyclizations of

Pvrrolecarboxamides

AUTHOR(S): Clayden, Jonathan; Turnbull, Rachel; Pinto, Ivan CORPORATE SOURCE: Department of Chemistry, University of Manchester,

Manchester, M13 9PL, UK

SOURCE: Organic Letters (2004), 6(4), 609-611

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:253465

GΙ

# \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Despite its electron-rich nature, a pyrrole ring is susceptible to intramol. nucleophilic attack by organolithiums. The resulting dearomatizing anionic cyclization yields new 5- or 7-membered heterocyclic rings. Formation of a new 5-membered ring, by cyclization of an N-benzylpyrrolecarboxamide, is accompanied by ring opening of the original pyrrole to yield 3-aminovinylpyrrolinones. Formation of a new 7-membered ring, by cyclization of an N-allyl pyrrolecarboxamide, yields bicyclic pyrroloazepinones. The amidation of 2-propenoyl chloride with 2-methyl-2-propanamine and alkenylation with 3-bromo-1-propene gave N-(1,1-dimethylethyl)-N-(2-propenyl)-2-propenamide, which was treated with TosMIC to give a pyrrole derivative which was protected using 2,2-diethylbutanoyl chloride to give the N-(2-propenyl)-1H-pyrrole-3-carboxamide I. Lithiation and cyclization of I gave a pyrrolo[3,2-c]azepine intermediate II. Treatment of the latter with

iodomethane gave the protected pyrrolo[3,2-c]azepin-4(2H)-one III.

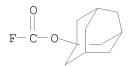
IT 62087-82-5, 1-Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of (aminoethenyl)pyrrolones by formation of pyrrolecarboxamides and their sequential lithiation, ring opening and cyclization)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 29 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:790047 CAPLUS

DOCUMENT NUMBER: 140:42418

TITLE: Solid-Phase Oligodeoxynucleotide Synthesis: A Two-Step

Cycle Using Peroxy Anion Deprotection

AUTHOR(S): Sierzchala, Agnieszka B.; Dellinger, Douglas J.;

Betley, Jason R.; Wyrzykiewicz, Tadeusz K.; Yamada,

Christina M.; Caruthers, Marvin H.

CORPORATE SOURCE: Department of Chemistry and Biochemistry, University

of Colorado, Boulder, CO, 80309, USA

SOURCE: Journal of the American Chemical Society (2003),

125(44), 13427-13441

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:42418

AB A novel solid-phase phosphoramidite based oligodeoxynucleotide two-step synthesis method has been developed. Keys to this method are replacement of the 5'-dimethoxytrityl blocking group with an aryloxycarbonyl and the use of N-dimethoxytrityl protection for the exocyclic amines of adenine and cytosine. With these modifications, coupling of each

and cytosine. With these modifications, coupling of eac 2'-deoxynucleoside 3'-phosphoramidite to the growing

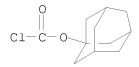
oligodeoxyribonucleotide on the solid support can be followed by treatment with an aqueous mixture of peroxy anions buffered at pH 9.6. This reagent effectively removes the carbonate protecting group and simultaneously oxidizes the phosphite internucleotide linkage. As a consequence a new two-step synthesis cycle is possible. Oligodeoxynucleotides synthesized using this approach are identical to authentic samples when tested by a variety of anal. techniques.

IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent) (solid phase oligodeoxyribonucleotide synthesis via two-step cycle using peroxy anion deprotection)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 30 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:648974 CAPLUS

DOCUMENT NUMBER: 139:276466

TITLE: Modular Ligands Derived from Amino Acids for the

Enantioselective Addition of Organozinc Reagents to

Aldehydes

AUTHOR(S): Richmond, Meaghan L.; Seto, Christopher T.

CORPORATE SOURCE: Department of Chemistry, Brown University, Providence,

RI, 02912, USA

SOURCE: Journal of Organic Chemistry (2003), 68(19), 7505-7508

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:276466

AB A new series of modular chiral ligands, derived from amino acids and containing a tertiary amine, an amino acid side chain, and a carbamate or amide functional group, were prepared and tested for their ability to

catalyze the asym. addition of diethylzinc to aromatic and aliphatic aldehydes.

IT 62087-82-5, 1-Adamantyl fluoroformate

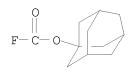
RL: RCT (Reactant); RACT (Reactant or reagent)

(amine carbamoylation; preparation of amino acid-derived amino-substituted amides and carbamates as modular ligands for enantioselective addition of

diethylzinc to aldehydes)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 31 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:463117 CAPLUS

DOCUMENT NUMBER: 139:286461

TITLE: Nitrogen substitution modifies the activity of

cytisine on neuronal nicotinic receptor subtypes

AUTHOR(S): Carbonnelle, Eric; Sparatore, Fabio; Canu-Boido,

Caterina; Salvagno, Cristian; Baldani-Guerra, Barbara;

Terstappen, Georg; Zwart, Ruud; Vijverberg, Henk;

Clementi, Francesco; Gotti, Cecilia

CORPORATE SOURCE: Department of Medical Pharmacology and Center of

Excellence on Neurodegenerative Diseases, Section of Cellular and Molecular Pharmacology, Institute of Neuroscience, University of Milan, CNR, Milan, 20129,

Italy

SOURCE: European Journal of Pharmacology (2003), 471(2), 85-96

CODEN: EJPHAZ; ISSN: 0014-2999

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:286461

AB Cytisine very potently binds and activates the  $\alpha 3\beta 4$  and  $\alpha 7$  nicotinic subtypes, but only partially agonizes the  $\alpha 4\beta 2$  subtype. Although with a lower affinity than cytisine, new cytisine derivs. With different substituents on the basic nitrogen (CC1-CC8) bind to both the heteromeric and homomeric subtypes, with higher affinity for brain [3H]epibatidine receptors. The cytisine derivs. Were tested on the Ca2+ flux of native or transfected cell lines expressing the

rat  $\alpha7$ , or human  $\alpha3\beta4$  or  $\alpha4\beta2$  subtypes using Ca2+ dynamics in conjunction with a fluorescent image plate reader. None elicited any response at doses of up to 30-100  $\mu\text{M}$ , but all inhibited agonist-induced responses. Compds. CC5 and CC7 were also electrophysiol.

tested on oocyte-expressed rat  $\alpha 4\beta 2$ ,  $\alpha 3\beta 4$  and

 $\alpha7$  subtypes. CC5 competitively antagonized the  $\alpha4\beta2$  and  $\alpha3\beta4$  subtypes with similar potency, whereas CC7 only partially

agonized them with maximum responses of resp. 3% and 11% of those of 1 mM acetylcholine. Neither compound induced any current in the oocyte-expressed  $\alpha7$  subtype, and both weakly inhibited acetylcholine-induced

currents. Adding chemical groups of a different class or size to the basic nitrogen of cytisine leads to compds. that lose full agonist activity on the  $\alpha 3\beta 4$  and  $\alpha 7$  subtypes.

IT 62087-82-5, 1-Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(nitrogen substitution modifies activity of cytisine on neuronal nicotinic receptor subtypes)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

F-C-0

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 32 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:462558 CAPLUS

DOCUMENT NUMBER: 139:374236

TITLE: Synthesis of new 3-alkoxy-7-amino-4-chloro-isocoumarin

derivatives as new  $\beta$ -amyloid peptide production

inhibitors and their activities on various classes of

protease

AUTHOR(S): Bihel, Frederic; Quelever, Gilles; Lelouard, Hugues;

Petit, Agnes; Alves da Costa, Cristine; Pourquie, Olivier; Checler, Frederic; Thellend, Annie; Pierre,

Philippe; Kraus, Jean-Louis

CORPORATE SOURCE: Laboratoire de Chimie Biomoleculaire, Developmental

Biology Institute of Marseille (CNRS-INSERM-Univ. Mediterranee- AP Marseille), INSERM U-382, Faculte des

Sciences de Luminy, Marseille, 13288, Fr.

SOURCE: Bioorganic & Medicinal Chemistry (2003), 11(14),

3141-3152

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:374236

A series of new 7-substituted-4-chloro-3-alkoxy isocoumarin derivs. were synthesized and evaluated as inhibitors of representative classes of proteases: serine protease ( $\alpha$ -chymotrypsin, trypsin), cysteine protease (Caspase-3), and aspartyl protease (HIV-protease), 20S proteasome and also as inhibitors of amyloid peptide  $\gamma$ -secretase-mediated production Protease inhibition selectivity is directly related to the structure of the substituent at the 7-position of the isocoumarin nucleus. 7-Nitro-isocoumarin derivs. are potent  $\alpha$ -chymotrypsin inhibitors but slightly active or inactive on HIV-protease, as well as on cysteine protease. In contrast, only derivs. bearing a free amino or a substituted amino group at the 7-position of the isocoumarin nucleus, were found weakly active or inactive on  $\alpha$ -chymotrypsin, trypsin, Caspase-3 and HIV-protease, but prevent  $\gamma$ -secretase-mediated production of  $A\beta$ 40/42 amyloid peptides, which is known to be involved in Alzheimer's disease. Moreover, the most active compds. on  $\beta$ -amyloid peptide production show only weak or moderate inhibitory activity on the 20S proteasome. The obtained results suggest that the described new isocoumarin analogs could be of interest for the development of new agents directed towards Alzheimer's disease.

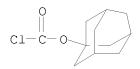
IT 5854-52-4, 1-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(synthesis of isocoumarin analogs as  $\beta\text{--amyloid}$  peptide production and protease inhibitors)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 33 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:939176 CAPLUS

DOCUMENT NUMBER: 138:250589

TITLE: (R)-3-amidinophenylalanine-derived inhibitors of factor Xa with a novel active-site binding mode

AUTHOR(S): Mueller, Markus Michael; Sperl, Stefan; Sturzebecher,

Jorg; Bode, Wolfram; Moroder, Luis

CORPORATE SOURCE: Max-Planck-Institut fur Biochemie, Martinsried,

D-82152, Germany

SOURCE: Biological Chemistry (2002), 383(7/8), 1185-1191

CODEN: BICHF3; ISSN: 1431-6730 Walter de Gruyter GmbH & Co. KG

PUBLISHER: Walter of DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:250589

AB A putative non-substrate-like binding mode of (R)-3-amidinophenylalanine derivs. to factor Xa was derived from modeling expts. based on X-ray anal. of their complexes with trypsin and subsequently used to design a new generation of inhibitors. However, the resulting inhibitory potencies were not at all consistent with the working assumption, although with an adamantyl-ureido derivative of (R)-3-amidinophenylalanine phenethyl amide a highly selective nanomolar inhibition of factor Xa was achieved. The X-ray anal. of the complex of this ligand with factor Xa revealed an unexpected new binding mode, of which the most important feature is the interaction of the C-terminal aryl moiety with a hydrophobic subregion of the S1 subsite, while the adamantyl group occupies the hydrophobic S3/S4 subsites of the enzyme.

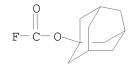
IT 62087-82-5, Adamantyloxycarbonylfluoride

RL: RCT (Reactant); RACT (Reactant or reagent)

((R)-3-amidinophenylalanine-derived inhibitors of factor Xa exhibit novel active site binding mode)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 34 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:487421 CAPLUS

DOCUMENT NUMBER: 137:47645

TITLE: Preparation of adamantyl-polyethylene glycol

containing sugar and peptide residues and inclusion

complexes as therapeutic agents

INVENTOR(S): Hwang, Pun Suzie; Gonzalez, Hector; Davis, Mark E.;

Bellocq, Nathalie; Cheng, Jianjun

PATENT ASSIGNEE(S): California Institute of Technology, USA; Insert

Therapeutics, Inc.

SOURCE: PCT Int. Appl., 138 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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         WO 2002049676 A2 20020627 WO 2001-US48620 20011219 WO 2002049676 A3 20021227
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                          CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
                          GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
                          LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
                          PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
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CA 2431207 A1 20020627 CA 2001-2431207 20011219
AU 2002029065 A 20020701 AU 2002-29065 20011219
US 2003008818 A1 20030109 US 2001-21312 20011219
US 7018609 B2 20060328
US 2003017972 A1 20030123 US 2001-21294 20011219
US 7166302 B2 20070123
EP 1351710 A2 20031015 EP 2001-990201 20011219
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CN 1491117

A 20040421

CN 2001-822729

20011219

HU 2004000655

A2 20040628

HU 2004-655

20011219

BR 2001016346

A 20040706

BR 2001-16346

20011219

JP 2004523502

T 20040805

JP 2002-551013

20011219

RU 2288921

C2 20061210

RU 2003-121303

20011219

AU 2002229065

B2 20070524

AU 2002-229065

ZA 2003004562

A 20040803

ZA 2003-4562

MX 2003PA05394

A 20040531

MX 2003-PA5394

US 2006182795

A1 20060817

US 2005-321441

20051228

US 2007128167

A1 20070607

US 2006-588033

20061025

RITY APPLN. INFO.:

US 2000-256344P

P 20001219

US 2001-21312

A3 20011219

US 2001-21312

A3 20011219

US 2001-21312

A3 20011219

US 2001-21312

A3 20011219
PRIORITY APPLN. INFO.:
                                                                                         WO 2001-21312 AS 20011219 WO 2001-US48620 W 20011219
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AB The invention provides a composition containing particulate composite of a polymer

with a formula of adamantyl-(CH2)n-Ja-PEGx-Lb-(functional group)y wherein J is NH, C(0)NH(CH2)d, NHC(0)(CH2)d, XH2SS, CO2,(CH2)eOP(0)[O(CH2)eadamantyl]O, peptide, polypeptide, NH(CO)CHR1NH(CO)CHR1NH; R1 is (CH2)aCO2H, (CH2)aCONH2; PEG is O(CH2CH2O)z; where z is 2-500; L is H, NH2, NH(CO)(CH2)e(CO)CH2, SO2CH:CH2, SS, CO2, carbohydrate residue; a is 0-1, b is 0-1; d is 0-6; e is 1-6; yr is 0-1, x is 0-1, and a therapeutic agent. The composition also contains a complexing agent. The polymer interacts with the complexing agent in a host-guest or a guest-host interaction to form an inclusion complex. A therapeutic composition of the invention may be used to deliver the therapeutic agent and to treat various disorders. Both the polymer of the particulate composite and the complexing agent may be used to introduce functionality into the therapeutic composition The invention also relates to a method of preparing a composition The method combines a therapeutic agent, a polymer having host or guest functionality, and a complexing agent having guest or host functionality to form the therapeutic composition. The complexing agent forms an inclusion complex with the polymer. The invention also relates to a method of delivering a therapeutic agent. According to the method, a

therapeutically effective amount of a therapeutic composition of the invention

is

administered to a mammal (e.g. human or animal) in recognized need of the therapeutic.

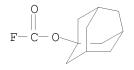
ΙT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of adamantylpolyethylene glycol containing sugar and peptide residues and inclusion complexes as therapeutic agents)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



ANSWER 35 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

2002:465968 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 137:47116

TITLE:

Isocoumarin derivatives, particularly 7-amino-4-chloro-3-(2-methoxyethoxy)isochromen-1-ones,

inhibiting production of amyloid peptide, preparation,

compositions containing them, and uses

Bihel, Frederic; Delaage, Michel; Jouve, Caroline; INVENTOR(S):

Kraus, Jean-Louis; Pourquie, Olivier; Williamson,

Toni-Louise; Drouot, Cyrille

PATENT ASSIGNEE(S): Trophos, Fr.

SOURCE: PCT Int. Appl., 58 pp.

CODEN: PIXXD2

Patent DOCUMENT TYPE: LANGUAGE: French

FAMILY ACC. NUM. COUNT:

P	PATENT NO.					D	DATE			APPI	LICAT	ION :	NO.		D.	ATE		
	0 2002 0 2002	0481	02		A2 A3		2002 2004			WO 2	2001-	FR39	02		2	0011	210	
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	RW:	KG, GR, GN,	KZ, IE,	MD, IT, GW,	RU, LU, ML,	TJ, MC, MR,	TM, NL, NE,	AT, PT, SN,	BE, SE, TD,	CH, TR, TG	TZ, CY, BF,	DE, BJ,	DK, CF,	ES, CG,	FI, CI,	FR, CM,	GB, GA,	
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MARPAT 137:47116 OTHER SOURCE(S):

GΙ

The invention concerns novel compds. inhibiting production of amyloid peptide, AΒ their preparation and their uses. In particular, the invention concerns compds. I [R1, R2 = H, alkyl, haloalkyl, alkenyl, alkynyl, cycloalkyl, aryl, aralkyl, aralkenyl, alkoxy, heterocyclyl, alkylthio, COR, CO2R, CONHR, SO2R; R = alkyl, haloalkyl, alkenyl, alkynyl, cycloalkyl, aryl, aralkyl, aralkenyl, heterocyclyl, alkylthio; or RCO = residue of (un)saturated fatty acid or (un)protected amino acid or peptide; Z = CH2CH2OMe or CH2CH2OCH2CH2OMe, optionally substituted by (un)saturated fatty acid or (un)protected amino acid or peptide; A = N, P, C(X); X = halo (preferably Cl) or OB; B = H, aryl, alkyl, or tosyl; Y = O, S, N; all groups alkyl, alkenyl, cycloalkyl, aryl, alkoxy, heterocyclyl, or alkylthio are optionally substituted by halo, OH, alkyl, aryl, heterocyclyl, NH2, NO2, cyano, CF3, etc.]. The invention also concerns methods for identifying or characterizing compds. which inhibit production of amyloid peptide (and in particular which are also non-toxic for embryonic development). The invention further concerns methods and uses of said compds. for treating nervous system disorders, in particular neurodegenerative pathologies such as Alzheimer's disease. For example, homophthalic acid was nitrated in the 4-position (vs. CH2 group), followed by acid esterification with 2-methoxyethanol, chlorination and cyclocondensation using PC15, and hydrogenation of nitro, to give title compound II (R1 = H). Treatment of the latter with 1-adamantyl fluoroformate and Et3N in THF gave II [R1 = adamantan-1-yloxycarbonyl]. In tests for inhibition of the production of amyloid  $\beta$  in chickens and rats, measured by ELISA, various compds. I gave 15-70% inhibition at  $1-100~\mu\mathrm{M}$ . Both compds. II cited above were substantially less toxic than two reference compds. (MW167 and MG132) toward development of chick embryos. The five most preferred compds. I were also determined to be inactive toward embryonic segmentation at 20-50  $\mu M$ . ΤТ

62087-82-5, 1-Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent) (precursor; preparation of aminoisocoumarin derivs. as inhibitors of amyloid peptide production)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

L4 ANSWER 36 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:287622 CAPLUS

DOCUMENT NUMBER: 137:5856

TITLE: Bridgehead Carbocations via Carbene Fragmentation:

Erasing a 1010 Kinetic Preference

AUTHOR(S): Moss, Robert A.; Zheng, Fengmei; Fede, Jean-Marie; Ma,

Yan; Sauers, Ronald R.; Toscano, John P.; Showalter,

Brett M.

CORPORATE SOURCE: Department of Chemistry and Chemical Biology, Rutgers,

The State University of New Jersey, New Brunswick, NJ,

08903, USA

SOURCE: Journal of the American Chemical Society (2002),

124(19), 5258-5259

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:5856

1-Norbornyloxychlorocarbene (1-NorOCCl), 1-bicyclo[2.2.2]octyloxychlorocar bene (1-BcoOCCl), and 1-adamantyloxychlorocarbene (1-AdOCCl) were generated in dichloroethane (DCE) by photolysis of the appropriate diazirines. The exclusive product in each case was the bridgehead alkyl chloride formed by fragmentation of the carbene to [R+ OC Cl-] ion pairs, loss of CO, and cation-anion collapse. In mixts. of methanol and DCE, each carbene gave three products: RC1, ROH, and ROMe. RC1 and ROMe resulted from competition between ion pair collapse and methanol capture of the cation. ROH resulted from methanol capture of the carbene (before fragmentation), followed by eventual methanolysis and hydrolysis of ROCH(Cl)OMe. The ratios of carbene capture to carbene fragmentation fell in the order 1-NorOCCl > BcoOCCl > 1-AdOCCl; 1-Nor+ was the least stable cation and the slowest to form by fragmentation, so that this carbene was the most readily captured. This trend was accentuated in methanol-pentane mixts., where ionic fragmentation was further slowed in the less polar solvent. Laser flash photolysis with either UV or time-resolved IR (TRIR) monitoring permitted the determination of the absolute rate consts. for fragmentations

of the carbenes in DCE at  $25^{\circ}$ . The rate consts. (s-1) were: 1-NorOCCl (3.3 + 104), 1-BcoOCCl (1.5 + 105), and 1-AdOCCl (5.9 + 105). The rate consts. decreased in the order of increasing strain in the resulting bridgehead carbocation, but the range of rate consts. was compressed to a factor of only .apprx.18. This contrasts with the factor of 1010 by which the acetolysis of 1-AdOTs at  $70^{\circ}$  exceeded that of 1-NorOTs. The fragmentation of 1-NorOCCl to the ion pair was 3 + 1015 times faster than the acetolysis of 1-NorOTs. The activation energies were measured as 9.0 kcal/mol (log A = 11.2 s-1) for the fragmentation of 1-NorOCCl and 4.4 kcal/mol (log A = 8.44 s-1) for that of 1-BcoOCCl both in DCE. B3LYP/6-31G\* computed activation energies in simulated DCE were 14.6 and 2.7 kcal/mol, resp.

IT 433713-18-9

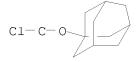
RL: CPS (Chemical process); FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent) (carbene mechanistic reaction intermediate; erasing 1010 kinetic

preference and bridgehead carbocations via carbene fragmentation)

RN 433713-18-9 CAPLUS

## Page 46

Methylene, chloro(tricyclo[3.3.1.13,7]dec-1-yloxy)- (9CI) (CA INDEX NAME) CN



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 37 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

2001:904116 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 136:37606

Synthesis of 2-substituted azoles via multicomponent TITLE:

reactions.

INVENTOR(S): Hlasta, Dennis

PATENT ASSIGNEE(S): Ortho-McNeil Pharmaceutical, Inc., USA

PCT Int. Appl., 80 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	PATENT NO.					D	DATE			APPL	ICAT	ION 1	NO.			ATE	
WO	2001	 0943	 18		A2		2001	1213		 WO 2	001-	 US16	727			0010	
WO	2001	0943	18		А3		2002	0718									
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,
	LS, LT,					MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NΖ,	PL,	PT,
	LS, LT, RO, RU,					SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,
		UZ,	VN,	YU,	ZA,	ZW,	AM,	ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM		
	RW:	GH,	GM,	ΚE,	LS,	MW,	MΖ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,
		DE,	DK,	ES,	FΙ,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG		
US	2002	0425	20		A1		2002	0411		US 2	001-	8628	8 0		2	0010	522
US	6951	948			В2		2005	1004									
PRIORIT	US 6951948 RIORITY APPLN. INFO.:									US 2	000-	2092	52P		P 2	0000	605
OTHER S	OURCE	(S):			CAS	REAC	T 13	6:37	606;	MAR:	PAT	136:	3760	6			
GI																	

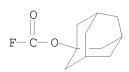
AΒ Title compds. [I; X = NH, NRa, S; Z = ORa, NRaRb, SR, cyano, N3, etc.; R3 = H, alkyl, (substituted) aralkyl, cycloalkyl, fluoroalkyl, COR, CO2R, etc.; R4 = alkyl, aryl, aralkyl, cycloalkyl, fluoroalkyl, alkenyl, alkynyl, COR, etc.; Ra, Rb = H, R, CO2R, COR, SO2R, SOR, etc.; R = alkyl, (substituted) aralkyl, cycloalkyl, adamantyl, norbornyl, fluoroalkyl, heterocyclyl], were prepared by treatment of the corresponding unsubstituted azoles with ACOV (A = F, Cl, Br, OCOCMe3; V = sterically hindered group)and then with R3C(: $\mathbb{W}$ )R4 ( $\mathbb{W}$  = O, NSO2R, NSOR, NCOR, NCO2R, NR; R as above) to give compds. (II; variables as above) followed by optional treatment of II with ZH (Z as above). Thus, 1-benzylimidazole in MeCN at  $0^{\circ}$  was treated sequentially with diisopropylcarbamoyl chloride in MeCN, PhCHO, and diisopropylethylamine followed by 24 h reflux to give 78% title compound (III).

ΙT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent) (synthesis of 2-substituted azoles via multicomponent reactions)

62087-82-5 CAPLUS RN

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



ANSWER 38 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

2001:772163 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 135:318510

TITLE: Preparation of arylpyridazinones as prostaglandin

> endoperoxide H synthase biosynthesis inhibitors Black, Lawrence A.; Basha, Anwer; Kolasa, Teodozyj;

INVENTOR(S): Kort, Michael E.; Liu, Huaqing; McCarty, Catherine M.; Patel, Meena; Rohde, Jeffrey J.; Coghlan, Michael J.;

Stewart, Andrew O.

PATENT ASSIGNEE(S): Abbott Laboratories, USA

SOURCE: U.S., 129 pp., Cont.-in-part of U.S. Ser. No. 261,872,

abandoned.
CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

	TENT I				KINI		DATE				LICA					ATE	
US TR CA WO	6307 2000 2347 2000 W:	047 0047 982 0247 AE, CZ, IN, MD, SK, GH, CG,	8 19 AL, DE, IS, MG, SL, GM, ES,	AM, DK, JP, MK, TJ, KE, FI, CM,	B1 T2 A1 A1, DM, KE, MN, TM, LS,	AU, EE, KG, MW, TR, GB, GN,	2001 2002 2000 2000 AZ, ES, KP, MX, TT, SD, GR, GW,	1023 0422 0504 0504 BA, FI, KR, NO, TZ, SL, IE, ML, 0515	BB, GB, KZ, NZ, UA, SZ, IT, MR,	US TR CA WO BG GD LC PL UG TZ LU NE	1999- 2000- 1999- 1999- 6, BR, 0, GE, 1, PT, 6, UZ, 1, MC, 1, MC, 1, SN,	-4277 -478 -2347 -US25 BY, GH, LR, RO, VN, ZW,	68 982 234 CA, GM, LS, RU, YU, AT, PT,	CH, HR, LT, SD, ZA, BE, SE,	1 1 1 CN, HU, LU, SE, ZW CH, BF,	9991 9980 9991 CR, ID, LV, SG,	027 810 027 027 CU, IL, MA, SI, DE, CF,
EP	1124	804			A1 B1			0822		EP	1999-	-9532	59		1	9991	027
EF		AT,				DK,	ES,		GB,	GR	R, IT,	LI,	LU,	NL,	SE,	MC,	PT,
TR HU HU JP AT ES ZA NO NO BG BG US US HK US US	9914 2001 2001 2003 3027 2249 2001 3186 1055 6526 2002 2002 1041 2003 7001 2004 7115	858 0176 0052 0052 55122 59 919 0033 0020 23 23 1 0133 0289 876 2252 895 1580	5 448 448 992 10 61 18 38	,	A T2		2002 2002 2002 2003 2005 2006 2002 2001 2005 2001 2007 2002 2002 2006 2003 2006 2004 2006	0221 0729 0930 0402 0915 0401 0723 0627 0418 1231 1031 0131 0307 0623 1204 0221		TR HU JP AT ES ZA NO BG US HK US US	1999- 2001- 2001- 2000- 1999- 2001- 2001- 2001- 2002- 2003- 2003-	-1765 -5248 -5782 -9532 -9532 -3310 -2061 -1055 -8711 -8708 -1012 -4179	89 59 59 23 95 38 07 59		1 1 1 1 2 2 2 2 2 2 2 2 2	9991 9991 9991 9991 9991 0010 0010 0010	027 027 027 027 027 423 426 519 531 531 219 417
PRIORIT	Y APP:	LN.	INFO	.:						US US US US	1997- 1998- 1998- 1998- 1999- 1997- 1999-	-1374 -1796 -2618 -9170	57 05 72 23	] ] ]	B2 1 B2 1 B2 1 A 1	9970 9980 9981 9990 9970 9990	820 027 303 822

US 1999-427768 A 19991027
WO 1999-US25234 W 19991027
US 2001-870838 B3 20010531
US 2001-871195 B3 20010531

OTHER SOURCE(S):

MARPAT 135:318510

Ι

$$X^2$$
 $X^2$ 
 $Y^2$ 
 $Y^2$ 

The title compds. [I; X = O, S, NR4, etc.; R4 = alkyl, alkenyl, cycloalkyl, etc.; R = H, alkyl, alkenyl, etc.; at least one of R1-R3 = II-III (wherein X1 = SO2, SO(NR10), SO, etc.; R9 = alkyl, alkenyl, alkynyl, etc.; X2 = H, halo, alkyl, etc.; R10 = H, alkyl, cycloalkyl); the remaining two of the groups of R1-R3 = H, OH, hydroxyalkyl, etc.] which are cyclooxygenase (COX) inhibitors, and in particular, are selective inhibitors of cyclooxygenase-2 (COX-2), and therefore are useful in treating pain, fever, inflammation, rheumatoid arthritis, and osteoarthritis, were prepared Thus, oxidation of

2-benzyl-4-(4-fluorophenyl)-5-

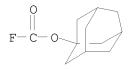
[4-(methylthio)phenyl]-3(2H)-pyridazinone (preparation given) with MeCO3H in CH2Cl2 afforded 86% I [X = 0; R = PhCH2; R1 = 4-FC6H4; R2 = 4-(MeSO2)C6H4; R3 = H], which showed IC50 of 0.014  $\mu\text{M}$  against COX-2. COX-2 is the inducible isoform associated with inflammation, as opposed to the constitutive isoform, cyclooxygenase-1 (COX-1) which is an important "housekeeping" enzyme in many tissues, including the gastrointestinal (GI) tract and the kidneys. The selectivity of the compds. I for COX-2 minimizes the unwanted GI and renal side-effects seen with currently marketed non-steroidal anti-inflammatory drugs (NSAIDs).

IT 62087-82-5, 1-Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent) (reactant; preparation of arylpyridazinones as prostaglandin endoperoxide H synthase biosynthesis inhibitors)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 39 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:597948 CAPLUS

DOCUMENT NUMBER: 135:167033

TITLE: Synthesis of arginine mimetics as factor Xa inhibitors

for use in anti-coagulation or antitumor therapy or as

diagnostic material

INVENTOR(S): Moroder, Luis; Sperl, Stefan; Sturzebecher, Jorg

PATENT ASSIGNEE(S): Germany

SOURCE: PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.									LICAT					ATE		
											 2001-:					0010	 209
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB	, BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES	, FI,	GB,	GD,	GE,	GH,	GM,	HR,
		HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP	, KR,	KΖ,	LC,	LK,	LR,	LS,	LT,
		LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX	, MZ,	NO,	NZ,	PL,	PT,	RO,	RU,
		SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR	, TT,	TZ,	UA,	UG,	US,	UZ,	VN,
		YU,	ZA,	ZW													
	RW:	•					•	•			, TZ,		•				
											, LU,					TR,	BF,
		•						•			, MR,		•				
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										EP	2001-	9169	79		2	0010	209
EP	1272									O.D.					0.0	1.10	D.III
	R:										, IT,	Ll,	LU,	NL,	SE,	MC,	PT,
7. 1. 1	7000						RO,	•			•	4410	7		_	0010	000
											2001-						
											2001-						
	7038						2003			US	2002-	182/	06		۷	0020	807
										TTC	2006-	4002	7.4		2	0060	410
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											2001 2002-					0010	
TED C	OLIDOE	(8) .			MADI	ד ת כ	135.	1670		00	2002	102/	00	•	AJ 2	0020	007

OTHER SOURCE(S): MARPAT 135:167033

GΙ

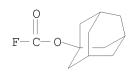
AB Title compds. (e.g. I.HCl) were prepared as DL-, D- or L-compds. and tested as factor Xa inhibitors for use as anticoagulants. Stereochem. of starting cyanophenylalanine determined the stereochem. of the product. Thus DL-(3-cyano)phenylalanine was BOC-protected [BOC = (CH3)3COC(0)-], reacted with hydroxylamine hydrochloride to give the hydroxyamidine , N-dehydroxylated, either esterified or amidified, BOC-deprotected, and coupled with 1-adamantyl isocyanate to give a DL-I-type product. In in vitro inhibition tests I had Ki 0.025  $\mu$ M for factor Xa, >1000 for uPA, 0.9 for thrombin, 7 for trypsin, and 37 for plasmin.

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of amino acid amidine or guanidine derivs. for use as factor Xa
inhibitors for therapeutic or diagnostic use)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 40 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:758593 CAPLUS

DOCUMENT NUMBER: 134:85927

TITLE: New Kinetics Methodologies Applied to Carbene

Fragmentation Reactions

AUTHOR(S): Moss, Robert A.; Johnson, Lauren A.; Yan, Shunqi;

Toscano, John P.; Showalter, Brett M.

CORPORATE SOURCE: Department of Chemistry, Rutgers The State University

of New Jersey, New Brunswick, NJ, 08903, USA

SOURCE: Journal of the American Chemical Society (2000),

122(45), 11256-11257

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

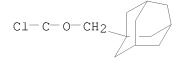
AB LFP-Time Resolved IR spectroscopy (TRIR) kinetics were conducted on chloro(alkylmethoxy) carbene precursors 3-benzyloxy-3-chlorodiazirine and 3-(1-adamantylmethoxy)-3-chlorodiazirine, by monitoring the formation of CO. Activation parameters were determined B3LYP DFT calcns. support the mechanism which suggests that the (1-adamantylmethoxy)chlorocarbene fragmentation involves a concerted ring expansion of the 1-adamantylmethyl group directly to the homoadamantyl cation.

IT 182802-27-3

RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent) (fragmentation kinetics of alkoxychlorocarbenes)

RN 182802-27-3 CAPLUS

CN Methylene, chloro(tricyclo[3.3.1.13,7]dec-1-ylmethoxy)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 41 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:725590 CAPLUS

DOCUMENT NUMBER: 133:266309

TITLE: Method for the production of substituted aliphatic

fluoroformates by the esterification of phosgen with an aliphatic alcohol in the presence of powdered

sodium fluoride

INVENTOR(S): Delabrouille, Philippe; Grenouillat, Denis; Senet,

Jean-Pierre; Sennyey, Gerard

PATENT ASSIGNEE(S): Isochem, Fr.

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
	A1 20001012	WO 2000-FR662	20000317
W: AE, AG, AL,	AM, AT, AU, AZ,	BA, BB, BG, BR, BY,	CA, CH, CN, CR,
CU, CZ, DE,	DK, DM, DZ, EE,	ES, FI, GB, GD, GE,	GH, GM, HR, HU,
ID, IL, IN,	IS, JP, KE, KG,	KP, KR, KZ, LC, LK,	LR, LS, LT, LU,
LV, MA, MD,	MG, MK, MN, MW,	MX, NO, NZ, PL, PT,	RO, RU, SD, SE,
SG, SI, SK,	SL, TJ, TM, TR,	TT, TZ, UA, UG, US,	UZ, VN, YU, ZA, ZW
RW: GH, GM, KE,	LS, MW, SD, SL,	SZ, TZ, UG, ZW, AT,	BE, CH, CY, DE,
DK, ES, FI,	FR, GB, GR, IE,	IT, LU, MC, NL, PT,	SE, BF, BJ, CF,
CG, CI, CM,	GA, GN, GW, ML,	MR, NE, SN, TD, TG	
FR 2791669	A1 20001006	FR 1999-4125	19990402
FR 2791669	B1 20010504		

CA	2369062			A1	2000	1012	CA	20	000-	2369	062			20000	317
BR	20000094	199		Α	2002	0102	BR	20	000-	9499				20000	317
EP	1165483			A1	2002	0102	EP	20	000-	9109	82			20000	317
EP	1165483			В1	2004	0303									
	R: AT,	BE,	CH,	DE,	DK, ES,	FR,	GB, GI	R,	IT,	LI,	LU,	NL,	SE	, MC,	PT,
	IE,	SI,	LT,	LV,	FI, RO										
HU	2002000	712		A2	2002	0629	HU	20	02-	712				20000	317
HU	2002000	712		A3	2004	0329									
JP	20035122	297		T	2003	0402	JP	20	000-	6093	73			20000	317
EP	1394145			A1	2004	0303	EP	20	03-	2647	5			20000	317
EP	1394145			В1	2006	0329									
	R: AT,	BE,	CH,	DE,	DK, ES,	FR,	GB, GI	R,	IT,	LI,	LU,	NL,	SE	, MC,	PT,
	IE,	FI,	CY												
AT	260884			T	2004	0315	AT	20	000-	9109	82			20000	317
CN	1680268			А	2005	1012	CN	20	05-	1007	0271			20000	317
AT	321749			T	2006	0415	AT	20	03-	2647.	5			20000	317
ES	2259126			Т3	2006	0916	ES	20	03-	2647.	5			20000	317
IN	2001MN00	985		A	2005	0819	IN	20	01-1	MN98	5			20010	816
US	6858751			В1	2005	0222	US	20	01-	9372	76			20010	924
MX	2001PA09	907		A	2002	0225	MX	20	01-	PA99	07			20011	001
PRIORITY	APPLN.	INFO	.:				FR	19	999-	4125			Α	19990	402
							CN	20	000-	8057	26		АЗ	20000	317
							EP	20	000-	9109	82		АЗ	20000	317
							WO	20	000-	FR66	2		W	20000	317

OTHER SOURCE(S): CASREACT 133:266309

 ${\tt AB}$  A method for the production of aliphatic fluoroformates, where carbonyl fluoride

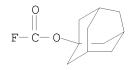
is esterified with aliphatic alcs. (e.g., tert-butanol) in an ether at  $-20\,^{\circ}$  to  $+50\,^{\circ}$ , is described . The method is carried out using carbonyl fluoride obtained by reacting phosgene with surplus powdered sodium fluoride whose granules have a sp. surface of  $\geq 0.1$  m2/g and/or an average diameter of  $\leq 20$  mm. This method enables the preparation of unstable fluoroformates (e.g., tert-Bu fluoroformate) in excellent yields.

62087-82-5P, 1-Adamantyl fluoroformate

RL: SPN (Synthetic preparation); PREP (Preparation) (method for the production of substituted aliphatic fluoroformates by the esterification of phosgen with an aliphatic alc. in the presence of powdered sodium fluoride)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



ΤT

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 42 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:646001 CAPLUS

DOCUMENT NUMBER: 133:238151

TITLE: Preparation of taxoid compounds as osteogenesis

promoters

INVENTOR(S): Ishizuya, Toshinori; Ikuta, Shunichi; Uzawa, Toyonobu;

Hori, Masayuki

PATENT ASSIGNEE(S): Asahi Kasei Kogyo Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 152 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	PATENT NO.					D	DATE			APPL	ICAT	ION I	NO.		D	ATE	
WO :	2000	0535	 92		 A1	_	2000	0914		 WO 2	000-	 JP13.	 34		2	0000	306
	W:	ΑE,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CR,	CU,
		CZ,	DE,	DK,	DM,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	IL,
		IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,
		MD,	MG,	MK,	MN,	MW,	MX,	NO,	NΖ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,
		SK,	SL,	ΤJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VN,	YU,	ZA,	ZW,	ΑM,
		AZ,	BY,	KG,	KΖ,	MD,	RU,	ТJ,	MT								
	RW:	GH,	GM,	ΚE,	LS,	MW,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,	DE,
		DK,	ES,	FΙ,	FR,	GB,	GR,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	BF,	ΒJ,	CF,
		CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG				
JP :	2003	0266	73		Α		2003	0129		JP 1	999-	5941	5		1:	9990.	305
PRIORITY	APP:	LN.	INFO	.:						JP 1	999-	5941	5	i	A 19	9990.	305
OTHER SO	URCE	(S):			MAR:	PAT	133:	2381	51								
GI																	

AB Claimed are osteogenesis promoters containing taxoids represented by general formula (I) in amts. effective for osteogenesis (wherein X and Y are each independently hydroxyl or a group convertible into hydroxyl in vivo; R1 is alkyl, alkenyl, alkynyl, Ph, naphthyl, furyl, or thienyl; R2 is alkyl, Ph, naphthyl, furyl, thienyl, alkoxy, or alkylamino; and R3 is hydrogen, alkyl, alkylcarbonyl, benzoyl, naphthoyl, furoyl, thenoyl, alkoxycarbonyl, or dialkylcarbamoyl) for the treatment of bone fracture and bone loss due to surgical bone removal. Thus, de-N-benzoyl-3'-desphenyl-3'-isobutylpaclitaxel (preparation given) was acylated by di-tert-amyl dicarbonate in a mixture of EtOAc and saturated aqueous NaHCO3 at room temperature for 5 h to give

de-N-benzoyl-N-tert-amyloxycarbonyl-3'-desphenyl-3'-isobutylpaclitaxel

Ι

(II). II in vitro increased number of bone nodules formed in rat osteoblastic cell from  $5.3\pm5.2$  (control) to 25, 64, and 97/well at 0.3, 1, and 4 ng/mL, resp.

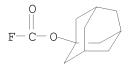
IT 62087-82-5, 1-Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of taxoid compds. as osteogenesis promoters for treatment of bone fracture and bone loss due to surgical bone removal)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 43 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:477081 CAPLUS

DOCUMENT NUMBER: 133:119933

TITLE: Dual pathways in the solvolyses of isopropyl

chloroformate

AUTHOR(S): Kyong, Jin Burm; Kim, Yong-Gun; Kim, Dong Kook;

Kevill, Dennis N.

CORPORATE SOURCE: Department of Chemistry, Hanyang University,

Kyunggi-Do, 425-791, S. Korea

SOURCE: Bulletin of the Korean Chemical Society (2000), 21(6),

662-664

CODEN: BKCSDE; ISSN: 0253-2964

PUBLISHER: Korean Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB The authors report the application of the extended Grunwald-Winstein equation to the solvolyses of secondary isoPr chloroformate in a wide range of solvent types. The specific rates for the solvolyses of primary, secondary, and tertiary alkyl chloroformate were also examined in terms of the extended Grunwald-Winstein LFER. IsoPr chloroformate provides evidence for 2 competing reaction channels. The solvolyses of isoPr chloroformate proceed by an ionizing pathway in all but the more nucleophilic and least ionizing solvents. In the more nucleophilicity-least ionizing combination (EtOH, 90% EtOH, MeOH and 90% MeOH) there is evidence for a dominant addition-elimination pathway. This behavior is very similar to those analyzed of the specific rates for solvolyses of Et chlorothioformate over a wide range of solvents.

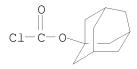
IT 5854-52-4, 1-Adamantyl chloroformate

RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(dual pathways in solvolyses of iso-Pr chloroformate)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 44 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:417316 CAPLUS

DOCUMENT NUMBER: 133:208130

TITLE: (R,R,R)-2,5-Diaminocylohexanecarboxylic Acid, a

Building Block for Water-Soluble, Helix-Forming

β-Peptides

AUTHOR(S): Appella, Daniel H.; LePlae, Paul R.; Raguse, Tami L.;

Gellman, Samuel H.

CORPORATE SOURCE: Department of Chemistry, University of Wisconsin,

Madison, WI, 53706-1396, USA

SOURCE: Journal of Organic Chemistry (2000), 65(15), 4766-4769

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:208130

AB A synthesis of a protected form of (R,R,R)-2,5-

diaminocylohexanecarboxylate is reported. Addnl., an improved synthesis

of (R,R)-2-aminocyclohexanecarboxylate is described.

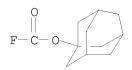
IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(stereoselective preparation of aminocylohexanecarboxylate)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 45 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:291005 CAPLUS

DOCUMENT NUMBER: 132:321867

TITLE: Preparation of arylpyridazinones as prostaglandin

endoperoxide H synthase biosynthesis inhibitors

INVENTOR(S): Black, Lawrence A.; Basha, Anwer; Kolasa, Teodozyj;

Kort, Michael E.; Liu, Huaqing; McCarty, Catherine M.; Patel, Meena V.; Rohde, Jeffrey J.; Coghlan, Michael

J.; Stewart, Andrew O.

PATENT ASSIGNEE(S): Abbott Laboratories, USA

## Page 57

PCT Int. Appl., 477 pp. CODEN: PIXXD2 SOURCE:

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT: 3

PATENT NO.				APP			.O		D	ATE	
WO 200002471 W: AE, CZ, IN, MD, SK, RW: GH, DK,	9 A AL, AM, AT DE, DK, DM IS, JP, KE MG, MK, MN SL, TJ, TM GM, KE, LS ES, FI, FR	1 2000 , AU, AZ, , EE, ES, , KG, KP, , MW, MX, , TR, TT, , MW, SD, , GB, GR,	0504 BA, I FI, ( KR, I NO, I TZ, U SL, S IE, S	WO BB, BG GB, GD KZ, LC NZ, PL UA, UG SZ, TZ IT, LU	1999-1 , BR, , GE, , LK, , PT, , UZ, , UG,	US252 BY, GH, LR, RO, VN, ZW, NL,	CA, GM, LS, RU, YU, AT, PT,	CH, HR, LT, SD, ZA, BE,	CN, HU, LU, SE, ZW CH,	ID, LV, SG,	CU, IL, MA, SI,
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OTHER SOURCE(S):	MA:	RPAT 132:	32186	WO	1999-1	US252	234	,	₩ 1	9991	027

$$R^3$$
 $N$ 
 $R$ 
 $R^2$ 
 $X$ 
 $R^1$ 
 $I$ 

The title compds. [I; X = O, S, NR4, etc.; R4 = alkyl, alkenyl, AB cycloalkyl, etc.; R = H, alkyl, alkenyl, etc.; at least one of R1-R3 = II-III (wherein X1 = SO2, SO(NR10), SO, etc.; R9 = alkyl, alkenyl, alkynyl, etc.; X2 = H, halo, alkyl, etc.; R10 = H, alkyl, cycloalkyl); the remaining two of the groups of R1-R3 = H, OH, hydroxyalkyl, etc.] which are cyclooxygenase (COX) inhibitors, and in particular, are selective inhibitors of cyclooxygenase-2 (COX-2), and therefore are useful in treating pain, fever, inflammation, rheumatoid arthritis, osteoarthritis, adhesions, and cancer, were prepared Thus, oxidation of 2-benzyl-4-(4fluorophenyl)-5-[4-(methylthio)phenyl]-3(2H)-pyridazinone (preparation given) with MeCO3H in CH2Cl2 afforded 86% I [X = O; R = PhCH2; R1 = 4-FC6H4; R2 = 4-(MeSO2)C6H4; R3 = H], which showed 0.014  $\mu$ M against COX-2. COX-2 is the inducible isoform associated with inflammation, as opposed to the constitutive isoform, cyclooxygenase-1 (COX-1) which is an important "housekeeping" enzyme in many tissues, including the gastrointestinal (GI) tract and the kidneys. The selectivity of the compds. I for COX-2 minimizes the unwanted GI and renal side-effects seen with currently marketed non-steroidal anti-inflammatory drugs (NSAIDs).

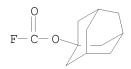
IT 62087-82-5, 1-Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant; preparation of arylpyridazinones as prostaglandin endoperoxide H synthase biosynthesis inhibitors)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 46 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:819360 CAPLUS

DOCUMENT NUMBER: 132:64524

TITLE: Preparation of N-thiazolidinylcarbonylphenylalanine

derivatives and analogs as inhibitors of

 $\alpha 4\beta 1$  mediated cell adhesion

INVENTOR(S): Blinn, James R.; Chrusciel, Robert A.; Fisher, Jed F.;

Tanis, Steven P.; Thomas, Edward William; Lobl, Thomas

J.; Teegarden, Bradley R.

PATENT ASSIGNEE(S): Pharmacia and Upjohn Company, USA; Tanabe Seiyaku Co.,

Ltd.

SOURCE: PCT Int. Appl., 308 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

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$$R^{1}$$
 $()$ 
 $q^{-X}$ 
 $(W)$ 
 $p$ 
 $NH$ 
 $R^{4}$ 
 $R^{3}$ 
 $(Y)$ 
 $p$ 
 $0$ 
 $0$ 
 $0$ 
 $0$ 
 $0$ 

AΒ Title compds. (I) [wherein m = 1 or 2; n = 1 and p = 1 or 1; q = 11-3; R1 = independently H or alkyl for 1-4 occurrences; R2 = H, pyridyl, alkyl, or carboxy(alkyl); or R1 and R2 may be attached to the same C and form a 5-8 membered carbocyclic or azacyclic ring; R3 = H, Ph, (aryl)alkyl, alkenyl, carboxy(alkyl), acylalkyl, alkoxyalkyl, hydroxy(alkyl), cyano(alkyl), adamantyl, or a variety of (un)substituted (hetero)aryl or (hetero)cyclic groups; R4 = OH, alkoxy, NH2, NHOH, alkylaryloxy, or pyridylmethoxy; R5 = (un)substituted Ph or pyridyl; W = C1-6 alkyl; X = S, O, or CH2; Y = C(0), C(0)O, SO2, or (un)substituted C(O)NH], pharmaceutically acceptable salts and stereoisomers thereof, were prepared as inhibitors of  $\alpha 4\beta 1$  mediated adhesion to either the vascular cell adhesion mol. (VCAM-1) or the CS-1 domain of fibronectin and are useful in the treatment of inflammatory diseases. Approx. 290 invention compds. and their intermediates were prepared via traditional or solid phase synthetic methods. For instance, II was synthesized in a 6-step sequence involving (1) cyclization of D-cysteine. HCl with HCHO to form (S)-3-thiazolidinecarboxylic acid, (2) N-protection with di-t-Bu dicarbonate, (3) amidation with 4-[(2,6-dichlorobenzoyl)amino]-Lphenylalanine Me ester, (4) N-deprotection with HCl, (5) N-mesylation, and (6) deesterification with aqueous NaOH, followed by work up, chromatog., and lyophilization. In vitro cell adhesion inhibitory and/or modulatory activities were reported for approx. 270 invention compds. tested in Jurkat CS-1 and/or Jurkat endothelial cell (EC) adhesion inhibition assays. Nine of the 21 compds. assayed showed > 40% inhibition of VLA-4 integrin-dependent eosinophil infiltration against acute inflammation and are expected to be useful in the treatment of asthma and other VLA-4 mediated diseases.

Ι

IT 62087-82-5, 1-Adamantyl fluoroformate RL: RCT (Reactant); RACT (Reactant or reagent) (reactant; preparation of N-thiazolidinylcarbonylphenylalanine derivs. and analogs as inhibitors of  $\alpha 4\beta 1$  mediated cell adhesion) RN 62087-82-5 CAPLUS

Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME) CN

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 47 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:628930 CAPLUS

DOCUMENT NUMBER: 132:12343

TITLE: Formation and Reactions of Lithium Ester Silenolates:

Silicon Analogues of Lithium Ester Enolates

AUTHOR(S): Ohshita, Joji; Sakurai, Hideaki; Tokunaga, Yoshiaki;

Kunai, Atsutaka

Department of Applied Chemistry Faculty of CORPORATE SOURCE:

Engineering, Hiroshima University, Higashi-Hiroshima,

739-8527, Japan

SOURCE: Organometallics (1999), 18(22), 4545-4551

CODEN: ORGND7; ISSN: 0276-7333

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

Treatment of cyclohexyl, adamantyl, and benzyl tris(trimethylsilyl)silanecarboxylates with tris(trimethylsilyl)silyllithi um afforded the corresponding Li ester silenolates by Li-Me3Si exchange. The Li ester silenolates thus prepared reacted readily with electrophiles including H2O, alkyl halides, and chlorosilanes to produce Si-substituted products. Oxidative coupling of the Li ester silenolates with Pd dichloride gave polysilane-1,2-dicarboxylates. With mesitaldehyde, a Li

ester silenolate produced products arising from addition of the ester silenolate across the carbonyl bond of the aldehyde.

62087-82-5, 1-Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation and reactions of lithium ester silenolates)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 48 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:576920 CAPLUS

DOCUMENT NUMBER: 131:199851

## Page 62

TITLE: Synthesis of paclitaxel by protecting the 7-hydroxyl

of baccatin III using a strong base and an

electrophile

INVENTOR(S): Gibson, Francis S.

PATENT ASSIGNEE(S): Bristol-Myers Squibb Co., USA

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

	PATENT NO.						DATE									DATE	
	9945															 19990	223
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		KR,	KΖ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW	MX,	NO,
		NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ΤJ,	TM,	TR	TT,	UA,
		UG,	UZ,	VN,	YU,	ZW											
	RW:	GH,	GM,	KΕ,	LS,	MW,	SD,	SZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,	DE	DK,	ES,
												SE,	BF,	ΒJ,	CF	CG,	CI,
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OTHER SO	OURCE	(S):			CAS:	REAC	T 13	1:19	9851	; MA	RPAT.	131	:199	851			

The process for synthesizing paclitaxel is disclosed where baccatin III is treated with a strong base in a solvent, adding an electrophile to the solution to form a 7-O-protected baccatin III derivative of formula I [P1 = protecting group], reacting the 7-O-protected baccatin III derivative with a protected paclitaxel sidechain in a solvent such that the protected paclitaxel sidechain is coupled to the 13-hydroxyl of the 7-O-protected baccatin III, and subsequently deprotecting the protected paclitaxel sidechain and the 7-O protecting group to form paclitaxel. Thus, baccatin III was treated with LiHMDS and 2,2,2-trichloroethoxycarbonyl chloride, then II and LiHMDS were added to the protected compound, then deprotected to give paclitaxel.

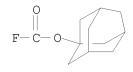
IT 62087-82-5, Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(synthesis of paclitaxel via protection of baccatin III with an electrophile and a strong base)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 49 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:523673 CAPLUS

DOCUMENT NUMBER: 131:242869

TITLE: Kinetics on the reaction of 1-adamantyl fluoroformate

with substituted pyridines

AUTHOR(S): Park, Byoung-Chun; Park, Soo Hyun; Kyong, Jin Burm;

Kim, Chang-Bae

CORPORATE SOURCE: Department of Chemistry, Hanyang University, Ansan,

425-791, S. Korea

SOURCE: Journal of the Korean Chemical Society (1999), 43(4),

456-460

CODEN: JKCSEZ; ISSN: 1017-2548

PUBLISHER: Korean Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: Korean

AB Rates of Menschutkin reaction of 1-adamantyl fluoroformate with substituted pyridines [3-CH3, 4-CH3, H, 3-Cl, 3,4-(CH3)2, 3,5-(CH3)2] in methanol have been measured by conductometric method at various temps. and concns. The activation parameters ( $\Delta$ H,  $\Delta$ S) and Hammett reaction constant ( $\rho$ ) and Bronsted coefficient ( $\beta$ ) were evaluated from rate consts. The activation entropies are large and neg., and the activation enthalpies are small and pos. The Hammett reaction constant ( $\rho$ ) and Bronsted coefficient ( $\beta$ ) values were -4.15 and 0.63, resp. From the above results, it may be concluded that this reaction proceeds to a concerted displacement mechanism in methanol.

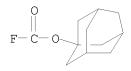
IT 62087-82-5, 1-Adamantyl fluoroformate

RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(kinetics of Menschutkin reaction of 1-adamantyl fluoroformate with substituted pyridines)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 50 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:405836 CAPLUS

DOCUMENT NUMBER: 131:213812

TITLE: A novel synthesis of trifluoromethyl ethers via

xanthates, utilizing BrF3

AUTHOR(S): Ben-David, Iris; Rechavi, Dalit; Mishani, Eyal; Rozen,

Shlomo

CORPORATE SOURCE: Raymond and Beverly Sackler Faculty of Exact Sciences,

School of Chemistry, Tel-Aviv University, Tel-Aviv,

69978, Israel

SOURCE: Journal of Fluorine Chemistry (1999), 97(1-2), 75-78

CODEN: JFLCAR; ISSN: 0022-1139

PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Alcs. were transformed into trifluoromethyl ethers by converting them to xanthates in almost quant. yield and following with a BrF3 reaction.

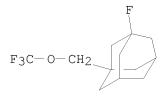
IT 242795-34-2P 242795-40-0P 242795-41-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of trifluoromethyl ethers by reaction of xanthates with bromine trifluoride)

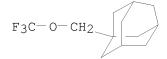
RN 242795-34-2 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-fluoro-3-[(trifluoromethoxy)methyl]- (CA INDEX NAME)



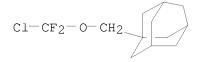
RN 242795-40-0 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(trifluoromethoxy)methyl]- (CA INDEX NAME)



RN 242795-41-1 CAPLUS

Tricyclo[3.3.1.13,7]decane, 1-[(chlorodifluoromethoxy)methyl]- (CA INDEX CN NAME)



21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 51 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

1999:205356 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 130:209927

TITLE: Preparation of nucleotide phosphonate ester analogs as

antiviral agents

Arimilli, Murty N.; Bischofberger, Norbert W.; Jones, INVENTOR(S):

Robert J.; Lee, William A.; Prisbe, Ernest J.

Gilead Sciences, Inc., USA PATENT ASSIGNEE(S):

SOURCE: U.S., 36 pp., Cont.-in-part of U.S. Ser. No. 193,341,

abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5886179	 А	19990323	US 1995-581147	19951229
US 5656745	A	19970812	US 1993-123483	19930917
CA 2239020	A1	19970710	CA 1996-2239020	19961213
WO 9724361	A1	19970710	WO 1996-US20226	19961213
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                                19970728
                                            AU 1997-14270
                                                                    19961213
                                            EP 1996-944469
     EP 874858
                          Α1
                                19981104
                                                                    19961213
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     NZ 325704
                                20000228
                                            NZ 1996-325704
                                                                    19961213
     JP 2000503640
                          Τ
                                20000328
                                            JP 1997-524416
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     BR 9612317
                          Α
                                20001031
                                            BR 1996-12317
                                                                    19961213
     JP 2006182779
                                20060713
                                            JP 2005-361122
                                                                    20051214
                          Α
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                          Α
                                20061026
                                                                    20060607
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                          Α
                                            US 1993-123483
PRIORITY APPLN. INFO.:
                                                                 A2 19930917
                                            US 1994-193341
                                                                 B2 19940208
                                            JP 1995-509394
                                                                 A3 19940916
                                            US 1995-581147
                                                                 A 19951229
                                            US 1995-9372P
                                                                 Ρ
                                                                    19951229
                                                                Р
                                            US 1995-9375P
                                                                    19951229
                                                                W 19961213
                                            WO 1996-US20226
OTHER SOURCE(S):
                        MARPAT 130:209927
GΙ
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AB Nucleotide phosphonate esters I (B = 5-fluorocytosin-1-yl, 5-methylcytosin-1-yl, heterocycle; R = S(O2)N(R3)2; R1 = H,CN, nitro, alkyl, -O-alkyl, acyl, SO3H, amine, CHO; R3 = H, alkyl, Ph, substituted Ph) characterized by the presence of an ester linked group which is bonded to the phosphorus atom of phosphonate nucleotide analogs are prepared as virucides. The analogs comprise an ester bond that is hydrolyzed in vivo to yield a corresponding phosphonate nucleotide analog. Thus, (R)-9-(2-di-2-ethoxyphenylphosphonylmethoxypropyl)adenine was prepared and tested for its HSV-1 and HSV-2 antiviral activities (EC50 = 3  $\mu \rm M$ ). IT 71570-32-6

Ι

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, chloromethyl ester (CA INDEX NAME)

C1CH<sub>2</sub>-O-C

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 52 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:166604 CAPLUS

DOCUMENT NUMBER: 130:223284

TITLE: Preparation of arylpyridazinones as prostaglandin

endoperoxide H synthase biosynthesis inhibitors
INVENTOR(S): Black, Lawrence A.; Basha, Anwer; Kolasa, Teodozyj;

Kort, Michael E.; Liu, Huaqing; McCarty, Catherine M.;

Patel, Meena V.; Rohde, Jeffrey J.

PATENT ASSIGNEE(S): Abbott Laboratories, USA SOURCE: PCT Int. Appl., 307 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

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		DK,	EE,	ES,	FΙ,	GB,	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IS,	JP,	ΚE,	KG,
		KP,	KR,	KΖ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,
		NO,	NΖ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,
		UA,	UG,	UΖ,	VN,	YU,	ZW										
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		CM,	GΑ,	GN,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG						
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CA	2299	300			С		2007	0417									
CA	2578	858			A1		1999	0304		CA 1	998-	2578	858		1		
	9886									AU 1	998-	8697	6		1	9980	810
	7413																
EΡ	1007	515			A1		2000	0614		EP 1	998-	9384	51		1	9980	810
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		,	,	FΙ,													
BR	9812	127			Α		2000	-			998-					9980	
TR	2000	0047	8		Т2		2002				000-				_	9980	
	2003						2003				000-					9980	-
-	2004						2004			HU 2	004-	909			1	9980	810
	2004		09				2004										
	1335				Α		2005				998-					9980	
	1941						2007				998-					9980	
	9807						1999				998-					9980	
	2322						2005				998-						
	2000		63				2000			NO 2	000-	863			2	0000	222
ИО	3154	23			В1		2003	0901									

MX 200001850 BG 104241	A A	20001030 20001031		2000-1850 2000-104241		20000222 20000315
BG 64675	В1	20051130				
PRIORITY APPLN. INFO.:			US	1997-917023	A	19970822
			US	1998-129570	A	19980805
			CA	1998-2299300	А3	19980810
			WO	1998-US16479	W	19980810

OTHER SOURCE(S): MARPAT 130:223284

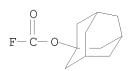
The title compds. [I; X = O, S, NR4, etc.; R4 = alkyl, alkenyl, AΒ cycloalkyl, etc.; R = H, alkyl, alkenyl, etc.; at least one of R1-R3 = II-III (wherein X1 = SO2, SO(NR10), SO, etc.; R9 = alkyl, alkenyl, alkynyl, etc.; X2 = H, halo, alkyl, etc.; R10 = H, alkyl, cycloalkyl); the remaining two of the groups of R1-R3 = H, OH, hydroxyalkyl, etc.] which are cyclooxygenase (COX) inhibitors, and in particular, are selective inhibitors of cyclooxygenase-2 (COX-2), and therefore are useful in treating pain, fever, inflammation, rheumatoid arthritis, osteoarthritis, adhesions, and cancer, were prepared Thus, oxidation of 2-benzyl-4-(4fluorophenyl)-5-[4-(methylthio)phenyl]-3(2H)-pyridazinone (preparation given) with MeCO3H in CH2Cl2 afforded 86% I [X = O; R = PhCH2; R1 = 4-FC6H4; R2 =4-(MeSO2)C6H4; R3 = H] which showed 0.014  $\mu\text{M}$  against COX-2. COX-2 is the inducible isoform associated with inflammation, as opposed to the constitutive isoform, cyclooxygenase-1 (COX-1) which is an important "housekeeping" enzyme in many tissues, including the gastrointestinal (GI) tract and the kidneys. The selectivity of the compds. I for COX-2 minimizes the unwanted GI and renal side-effects seen with currently marketed non-steroidal anti-inflammatory drugs (NSAIDs).

IT 62087-82-5, 1-Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of arylpyridazinones as prostaglandin endoperoxide H synthase biosynthesis inhibitors)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 53 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

## Page 69

ACCESSION NUMBER: 1998:572292 CAPLUS

DOCUMENT NUMBER: 129:189610

TITLE: Preparation of amidate linked amino acid nucleotide

analogs as antitumors and antiviral agents

INVENTOR(S): Bischofberger, Norbert W.; Jones, Robert J.; Arimilli,

Murty N.; Louie, Michael S.; Prisbe, Ernest J.; Lee,

William A.

PATENT ASSIGNEE(S): Gilead Sciences, Inc., USA

SOURCE: U.S., 62 pp., Cont.-in-part of U.S. Ser. No. 193,341,

abandoned.
CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PA	PATENT NO.				KIND DATE		,	APPL	ICAT	ION 1	NO.	DATE							
US					A 19970812			US 1996-617849 US 1993-123483 WO 1994-US10539					19930917						
	W:						BR, KP,												
	RW:	NL,	NO,	NZ,	PL,	PT,	RO, CH,	RU,	SD,	SE,	SI,	SK,	TJ,	TT,	UA,	US,	UZ,	VN	
		NL,	PT,	SE,	BF,	BJ,	CF,	CG,	CI,	CM,	GA,	GN,	ML,	MR,	NE,	SN,	TD,	TG	
US	5591				Α		1997												
US	5756	486			A 1998052					US 1996-708596					19960905				
US	6225	460								US 1999-247497					19990210				
US	US 2001041794			A1 20011115				US 2001-801164					20010307						
US	US 2004242465			A1		20041202 US 2004-882022 2004						0040	629						
JP	2006	1827	79		A		2006	060713 JP 2005-361122				22	20051214						
JP	JP 2006290898			A		2006	1026		JP 2006-159159					20060607					
JP	JP 2006306882			A		2006	1109	JP 2006-159160					20060607						
PRIORIT	Y APP	LN.	INFO	.:						US 1	993-	1234	83		A2 1	9930	917		
										US 1	994-	1933	41		B2 1	9940	208		
										WO 1	994-	US10	539		W 1	9940	916		
									US 1996-597005					A2 19960205					
										JP 1995-509394					A3 19940916				
										US 1	996-	6178	49		A3 1	9960	506		
										US 1	998-	7142	0		B1 1	9980	501		
											999-					9990			
										US 2	001-	8011	64		B1 20010307				
										US 2	004-	7788	56		B1 2	0040	213		
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OTHER SOURCE(S): MARPAT 129:189610

GΙ

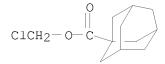
AB Nucleotide analogs I (B = nucleobase, L = amidite oxy ester, amidite thio ester) characterized by the presence of an amidate linked amino acid or an ester linked group which is bonded to the phosphorus atom of phosphonate nucleotide analogs are disclosed. The analogs comprise a phosphoramidate or ester bond that is hydrolyzed in vivo to yield a corresponding phosphonate nucleotide analog. Methods and intermediates for the synthesis and use are described. Thus, (R)-9-(2-di-2-ethoxyphenylphosphonylmethoxypropyl) adenine was prepared and tested for its antiviral HSV-1 and HSV-2 activities (EC50 = 3-200  $\mu$ M).

IT 71570-32-6

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of amidate linked amino acid nucleotide analogs as antitumors and antiviral agents)

RN 71570-32-6 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, chloromethyl ester (CA INDEX NAME)



REFERENCE COUNT: 108 THERE ARE 108 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

THIS RECORD. ALL CITATIONS AVAILABLE IN THE RI

FORMAT

L4 ANSWER 54 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:352629 CAPLUS

DOCUMENT NUMBER: 129:27954

TITLE: Quinazolinone derivatives as cholecystokinin (CCK)

ligands

INVENTOR(S): Padia, Janak Khimchand PATENT ASSIGNEE(S): Warner-Lambert Co., USA

SOURCE: U.S., 23 pp., Cont.-in-part of U.S. Ser. No. 287,454.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
US 5756502	A	19980526	US 1995-500436	19950	710
US 5869665	A	19990209	US 1997-826843	19970	408
PRIORITY APPLN. INFO.:			US 1994-287454	A2 19940	808
			US 1995-500436	A3 19950	710
OBUIDD COUDON (C)	07 CDE	ACE 100 070E	MADDAM 100 070F4		

OTHER SOURCE(S): CASREACT 129:27954; MARPAT 129:27954

GΙ

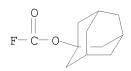
Ι

The title compds. [I; W, X, Y, Z = CR3, CR4, CR5, CR6, N, etc.; M = O, S; B = bond or (un)substituted alkylene; A = R1NCO(CH2)n, CONR11(CH2)n, etc.; n = 0, 1; R1, R2 = C1-6 alkyl, (un)substituted aryl, etc.; R3-R6 = H, OH, alkoxy, etc.; R11 = H, lower alkyl] are prepared I with good binding affinity for the CCK-A and CCK-B receptors are useful agents to suppress appetite, reduce gastric acid secretion, and the like. Thus, 2-(aminomethyl)-3-[3-(methylethoxy)phenyl]-4(3H)-quinazoline (preparation given) was reacted with 3-methylphenyl isocyanate to give 50% the title compound (II), which showed CCK-A and CCK-B receptor binding affinities (Ki) of 1637 and 879 nm resp.

TT

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 83 THERE ARE 83 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 55 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:323158 CAPLUS

DOCUMENT NUMBER: 129:16386

TITLE: Preparation of branched peptide linkers

INVENTOR(S): King, Dalton; Firestone, Raymond A.; Dubowchik, Gene

Μ.

PATENT ASSIGNEE(S): Bristol-Myers Squibb Co., USA

SOURCE: PCT Int. Appl., 120 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	PATENT NO.					KIND DA		DATE		APPLICATION NO.									
WO	WO 9819705			A1 19980514			WO 1997-US19851						19971031						
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		ES,	FI,	GB,	GE,	HU,	IL,	IS,	JP,	KE,	KG,	KP,	KR,	KΖ,	LK,	LR,	LS,		
		LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,		
		SE,	SG,	SI,	SK,	ΤJ,	TM,	TR,	TT,	UA,	UG,	UZ,	VN,	AM,	ΑZ,	BY,	KG,		
		KΖ,	MD,	RU,	ТJ,	TM													
	RW:	GH,	ΚE,	LS,	MW,	SD,	SZ,	UG,	ZW,	ΑT,	BE,	CH,	DE,	DK,	ES,	FΙ,	FR,		
		GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,		
		GN,	ML,	MR,	NE,	SN,	TD,	TG											
CA	2264	610			A1		1998	CA 1997-2264610						19971031					
AU	9851	597			A		1998	0529		AU 1	998-	5159	7		19971031				
EP	9411	20			A1		1999	0915		EP 1	997-	9464.	28		1	9971	031		
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,		
		ΙE,	FI																
JP	2001	5051	94		T		2001	0417		JP 1	998-	5216	06		1	9971	031		
US	6759.	509			В1		2004	0706		US 1	997-	9623	48		1	9971	031		
PRIORIT:	APP:	LN.	INFO	.:						US 1	996-	3036	7P		P 1	9961	105		
									,	WO 1	997-	US19	851	1	W 1	9971	031		

OTHER SOURCE(S): MARPAT 129:16386

AB Conjugates containing a targeting ligand, such as an antibody, a therapeutically active drug and a branched peptide linker are given. The branched peptide linker contains two or more amino acid moieties that provide an enzyme cleavage site. The number of drugs capable of being bonded to the branched linkers varies by a factor of two for each generation of branching. Compds. A-Wc-(CH2)a-(Q)p-(CO)d-E[(CH2)b-X]2 (A = thiol acceptor, W = bridging moiety, c = integer 0-1, a = 2-12, Q = 0, NH, alkylimino, p, d = 0-1, E = polyvalent atom, b = 1-10, X = CO-Y-Zm-Gn, where Y = two L-amino acid residues, m = 0-1, G = self-immolative spacer, n = 0-1), and related compds. with further branching at X, are claimed. Thus, syntheses of MEt-IDP-[AA-Lys-PABC-DOX]2 dichloroacetates [MEt-IDP = N-maleoyl-N',N'-bis(carboxyethyl)ethylenediamine residue; AA = Lys, Phe, or Ala; PABC = p-NHC6H4CH2O2C; DOX = doxorubicin residue] are described.

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of branched peptide linkers)

RN 207613-88-5 CAPLUS

CN Carbonochloridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)

Page 73

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 56 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:223939 CAPLUS

DOCUMENT NUMBER: 128:308483

TITLE: Diastereomeric separation of 1,5-benzodiazepines due

to the presence of a chiral center on the N-5 alkylic

Araldi, Gian Luca; Donati, Daniele; Tranquillini, AUTHOR(S):

Maria Elvira; Ursini, Antonella

CORPORATE SOURCE: Glaxo Wellcome S.p.A., Medicines Research Centre,

Verona, 37135, Italy

Farmaco (1998), 53(1), 49-54 SOURCE: CODEN: FRMCE8; ISSN: 0014-827X

PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal English LANGUAGE:

The presence of a chain bearing a stereogenic center at the N-5 position

of 1-(1-adamantylmethyl)-3-arylureido-2,4-dioxo-1,5-benzodiazepines

induces optical resolution The synthesis of these compds. and their potency as potential CCK-B receptor antagonists is reported.

ΙT 5854-52-4, 1-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation and resolution of cholecystokinin antagonist

adamantylmethylbenzodiazepinediones)

5854-52-4 CAPLUS RN

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 57 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:118627 CAPLUS

DOCUMENT NUMBER: 128:167657

TITLE: Preparation of cyclic nucleotide phosphonate esters as

virucides

Arimilli, Murty N.; Jones, Robert J.; Prisbe, Ernest INVENTOR(S):

PATENT ASSIGNEE(S): Gilead Sciences, Inc., USA

SOURCE: U.S., 22 pp. CODEN: USXXAM

DOCUMENT TYPE: Patent

English LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

KIND DATE APPLICATION NO. DATE PATENT NO.

US 5717095 A 19980210 US 1996-774240 19961227 PRIORITY APPLN. INFO.: US 1996-774240 19961227

OTHER SOURCE(S): MARPAT 128:167657

GΙ

AB Cyclic nucleotide phosphonate esters I [B = (un)protected cytosin-1-yl] were prepared as virucides. Thus, I (B = cytosine) was prepared and tested for activity against HSV-1 and HSV-2 using MA 104 cells (EC50 = 2-200  $\mu\text{M})$ .

IT 71570-32-6

RL: RCT (Reactant); RACT (Reactant or reagent)

Ι

(preparation of cyclic nucleotide phosphonate esters as virucides)

RN 71570-32-6 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, chloromethyl ester (CA INDEX NAME)

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 58 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:771564 CAPLUS

DOCUMENT NUMBER: 128:48480

TITLE: Synthesis and antinociceptive activity of

[D-Ala2]Leu-enkephalin derivatives conjugated with the

adamantane moiety

AUTHOR(S): Kitagawa, Kouki; Mizobuchi, Noriko; Hama, Teruo; Hibi,

Tohru; Konishi, Ryoji; Futaki, Shiroh

CORPORATE SOURCE: Niigata College of Pharmacy, Niigata, 950-21, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1997), 45(11),

1782-1787

CODEN: CPBTAL; ISSN: 0009-2363

PUBLISHER: Pharmaceutical Society of Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Based on the physiochem. and pharmacol. properties of drugs having an adamantane skeleton, an adamantane-based moiety was evaluated as a drug carrier for poorly absorbed compds., including peptides, active towards the central nervous system (CNS). Seven [D-Ala2]Leu-enkephalin derivs. conjugated with an adamantane-based moiety at the C-terminus or N-terminus

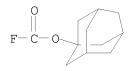
were prepared by the solution-phase method and their biol. activities were examined The compds. derivatized at the C-terminus through an ester or amide linkage were much more lipophilic than the parent peptide and exhibited moderate in vitro opioid activity (guinea-pig ileum assay). Among them, four derivs. H-Tyr-D-Ala-Gly-Phe-Leu-R [R = 1-adamantyloxy, 2-adamantyloxy, 2-(1-adamantyl)ethoxy, 1-adamantylamino] exhibited significant antinociceptive effects in an in vivo assay (mouse tail-pressure test) after s.c. administration. This result suggests that the introduction of the lipophilic adamantane moiety into [D-Ala2]Leu-enkephalin would improve the permeation of the poorly absorbed parent peptide through the blood-brain-barrier (BBB) without loss of antinociceptive effect.

IT 62087-82-5, 1-Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation and antinociceptive activity of adamantane-containing leucine-enkephalin derivs.)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 59 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:707582 CAPLUS

DOCUMENT NUMBER: 128:30034

TITLE: E-64 analogs as inhibitors of cathepsin B. On the role

of the absolute configuration of the epoxysuccinyl

group

AUTHOR(S): Schaschke, Norbert; Assfalg-Machleidt, Irmgard;

Machleidt, Werner; Turk, Dushan; Moroder, Luis

CORPORATE SOURCE: Max-Planck-Institut fur Biochemie, Martinsried, 82152,

Germany

SOURCE: Bioorganic & Medicinal Chemistry (1997), 5(9),

1789-1797

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier DOCUMENT TYPE: Journal LANGUAGE: English

AB A series of trans-epoxysuccinyl-peptide derivs. based on the natural inhibitor E-64 were synthesized in the (2R,3R) and (2S,3S) configuration to analyze the role of the stereochem. of this residue in dictating inhibitory potency and selectivity for cysteine proteases. The authors confirmed that binding of E-64 like trans-epoxysuccinyl compds. is remarkably favored by the (2S,3S) configuration, but the authors also found that CA030-type compds. are stronger inhibitors in the (2R,3R) configuration than the related diastereomers. Consequently, the structural requirements for exploiting both the S and S' subsites are not additive and a structure-based design of bis-peptidyl derivs. of trans-epoxysuccinic acid to increase selective inhibition becomes even

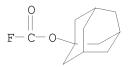
more difficult. Addnl. contrasting effects were observed for the pH optima required in the electrostatic interactions at the S and S' subsites.

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent) (reactant; E-64 analogs as inhibitors of cathepsin B and role of absolute configuration of epoxysuccinyl group in relation to other cysteine proteases)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 60 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:543458 CAPLUS

DOCUMENT NUMBER: 127:136036

TITLE: Preparation of nucleotide phosphonate ester analogs as

virucides

INVENTOR(S): Arimilli, Murty N.; Bischofberger, Norbert W.; Jones,

Robert J.; Lee, William A.; Prisbe, Ernest J.

PATENT ASSIGNEE(S): Gilead Sciences, Inc., USA

SOURCE: PCT Int. Appl., 87 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PA'	PATENT NO.				KIND DATE			APPLICATION NO.					DATE				
WO	9724	 361			A1	_	 1997	0710		 WO 1	-996-	US20.	 226		1	9961.	213
	W:	AL,	AM,	ΑT,	ΑU,	AZ, BB, BG, HU, IL, IS,			BR,	BY,	CA,	CH,	CN,	CZ,	DE,	DK,	EE,
		ES,	FΙ,	GB,	GE,	HU,	IL,	IS,	JP,	KE,	KG,	KP,	KR,	KΖ,	LK,	LR,	LS,
		LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NΖ,	PL,	PT,	RO,	RU,	SD,
		SE,	SG,	SI,	SK,	ТJ,	TM,	TR,	TT,	UA,	UG,	US,	UZ,	VN			
	RW:	ΚE,	LS,	MW,	SD,	SZ,	UG,	ΑT,	BE,	CH,	DE,	DK,	ES,	FI,	FR,	GB,	GR,
		ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	ML,
		MR,	NE,	SN,	TD,	ΤG											
US	5886	179			A		1999	0323		US 1	995-	5811	47		1:	9951.	229
AU	9714.	270			Α		1997	0728		AU 1	997-	1427	0		1:	9961.	213
EP	8748	58			A1		1998	1104		EP 1	996-	9444	69		1	9961.	213
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,
		IE,	FI														
NZ	3257	0.4			A		2000	0228		NZ 1	996-	3257	0 4		1:	9961.	213
JP	2000	5036	40		Τ		2000	0328		JP 1	997-	5244	16	19961213			213
BR	BR 9612317 A				A		2000	1031		BR 1	996-	1231	7		1:	9961.	213
PRIORIT	RIORITY APPLN. INFO.:							US 1	995-	5811	47	Ž	A2 1	9951.	229		
					US 1995-9372P				I	P 19951229							
										US 1	995-	9375	Ρ	I	2 1	9951.	229

US 1993-123483 A2 19930917 US 1994-193341 B2 19940208 WO 1996-US20226 W 19961213

OTHER SOURCE(S): MARPAT 127:136036

GΙ

Nucleotide phosphonate esters I (R = H, alkyl, ether, CHO, CH2Bn, ester, keto, amide, sulfone; R1 = H, CN, NO2, halo, alkyl, ether, ester, keto, SO3H, amine, CHO, OH; B = heterocycle, nucleobase) were prepared as virucides and immunogens. The analogs comprise an ester bond that is hydrolyzed in vivo to yield a corresponding phosphonate nucleotide analog. Thus, I (R = R1 = H, B = adenine) was prepared and tested against HSV-1 and HSV-2. These compds. were tested against HSV-1 and HSV-2 (IC50 = 2-200  $\mu$ M) compared to 9-(2-Phosphonylmethoxyethyl)adenine (PMEA) (IC50 = 138  $\mu$ M). Some of these compds. were more active against HSV-2 than PMEA.

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, chloromethyl ester (CA INDEX NAME)

L4 ANSWER 61 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:503148 CAPLUS

DOCUMENT NUMBER: 127:121644

TITLE: Preparation of heteroarylacetic acid derivatives as

leukotriene inhibitors

INVENTOR(S): Es-Sayed, Mazen; Yamamoto, Masaru; Frobel, Klaus;

Poll, Chris; Grix, Suzanna; Tudhope, Stephen

PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 9722588 A1 19970626 WO 1996-EP5441 19961205

W: AU, BG, BR, BY, CA, CN, CZ, EE, HU, IL, IS, JP, KE, KP, KR, LT, LV, MX, NO, NZ, PL, RO, RU, SG, SI, SK, UA, US, VN

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE AU 9711909 A 19970714 AU 1997-11909 19961205

PRIORITY APPLN. INFO.: GB 1995-25828 A 19951218

WO 1996-EP5441 W 19961205

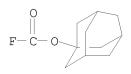
OTHER SOURCE(S): MARPAT 127:121644

AB The title compds. R1R2C(E)D [I; R1 = (un)substituted 6-membered aromatic heterocycle having up to 2 N atoms and to which a Ph ring can be fused; R2 = adamantyl, C3-6 cycloalkyl, pyridyl, etc.; D = H, Cl, OH; E = (NH)bCO2R5, (CO)cNR6R7, NHCOR8 (wherein b, c = 0-1; R5, R8 = adamantyl, menthyl, etc.; R6, R7 = H, C3-6 cycloalkyl, Ph, etc.)], inhibitors of the leukotriene synthesis particularly of leukotriene B4 and therefore useful for controlling and treating airway diseases and inflammatory processes, were prepared Thus, reaction of 2-cyclopentyl-2-(2-pyridyl)acetic acid with PhCH2NH2 in the presence of ClCOOiBu and N-methylmorpholine in Me2CO afforded 59% I [R1 = 2-pyridyl; R2 = cyclopentyl; E = H; D = C(O)NHCH2Ph]. Compds. I are effective at 10-50 mg/kg (i.v.).

IT 62087-82-5, Adamantyloxycarbonyl fluoride RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of heteroarylacetic acid derivs. as leukotriene inhibitors)  ${\tt RN} - {\tt 62087-82-5} - {\tt CAPLUS}$ 

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 62 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:347198 CAPLUS

DOCUMENT NUMBER: 127:4949

TITLE: Synthetic and Mechanistic Studies on the

Azabicyclo[7.3.1]enediyne Core and

Naphtho[2,3-h]quinoline Portions of Dynemicin A

AUTHOR(S): Magnus, Philip; Eisenbeis, Shane A.; Fairhurst, Robin

A.; Iliadis, Theodore; Magnus, Nicholas A.; Parry,

David

CORPORATE SOURCE: Department of Chemistry and Biochemistry, University

of Texas at Austin, Austin, TX, 78712, USA

SOURCE: Journal of the American Chemical Society (1997),

119(24), 5591-5605

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 127:4949

GΙ

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The synthesis of the 13-keto-10-azabicyclo[7.3.1]enediyne core structure of dynemicin A has been achieved by two routes. The chemical of the 13-keto core structure is dominated by the unusually facile bridgehead enolization. Comparison of the rates of cycloaromatization of a variety of enedignes revealed that substantial rate differences occurred even though the distance between the bonding acetylenes was virtually identical. A nonradical cycloaromatization pathway, initiated by thiol addition to the enediyne system, was discovered, and the simple core amine I exhibits modest in vitro and in vivo antitumor activity. Finally, two methods for the synthesis of the naphtho[2,3-h]quinoline portion of dynemicin A are described, and both these compds., II [R = COCMe3, Et], also exhibit antitumor activity.

5854-52-4, 1-Adamantyl chloroformate ΤТ

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation and antitumor activity of the azabicyclohexadecatetraenediyne and naphthoquinoline fragments of dynemicin A)

5854-52-4 CAPLUS RN

Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME) CN

THERE ARE 144 CITED REFERENCES AVAILABLE FOR REFERENCE COUNT: 144 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

ANSWER 63 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

1997:342745 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 127:51005

TITLE: Preparation of N-substituted cycloalkyl and

> polycycloalkyl  $\alpha$ -substituted Trp-Phe- and phenethylamine derivatives as anxiolytics and

cholecystokinin activity-modifying agents

Horwell, David C.; Pritchard, Martyn C.; Roberts, INVENTOR(S):

Edward; Richardson, Reginald S.; Aranda, Julian

PATENT ASSIGNEE(S): Warner-Lambert Company, USA

U.S., 108 pp., Cont.-in-part of U.S. Ser. No. 958,196, SOURCE:

abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5631281	A	19970520	US 1994-235814	19940428
AU 9059628	A	19910117	AU 1990-59628	19900628

AU	644088			В2	19	931202				
ZA	900505	7		А	19	920226	ZA	1990-5057		19900628
EP	479910			A1	19	920415	EP	1990-911185		19900628
	R: A	T, BE,	CH,	DE, I	DK, E	S, FR,	GB, I	I, LI, LU, NL,	SE	
JP	045060	79		T	19	921022	JP	1990-510126		19900628
	297233			B2		991108				
CA	206065	2		С	20	010821		1990-2060652		19900628
	234470			С		020730		1990-2344707		19900628
	527831			А		940111		1990-629809		19901219
	106197			В1		001215		1991-6060		19911220
_	910512			Α	-	920227	NO	1991-5122		19911227
_	301831			В1	_	971215				
	558089			А		961203		1995-447142		19950522
	562298			A	19	970422		1995-447141		19950522
PRIORITY	Y APPLN	. INFO	.:					1989-374327		19890629
								1989-422486		19891016
								1990-580811		19900605
								1990-545222		19900628
								1990-629809		19901219
								1992-958196		19921007
								1990-530811	A	19900605
								1990-234264	A	19900627
								1990-2060652		19900628
								1990-US3553	A	19900628
								1994-235814	В3	19940428
OTHER SO	DURCE (S	):		MARPA	AT 12	7:5100	5			

OTHER SOURCE(S): MARPAT 127:51005

GI

AB Novel unnatural dipeptoids I [R1 = C3-12 (poly)cycloalkyl containing 0-4 substituents each (un)branched C1-6 alkyl, halo, CN, OR, SR, CO2R, CF3, NR5R6, (CH2)nOR5; R = (un)branched C1-6 alkyl, R5, R6 = H, C1-6 alkyl, n = 0-6; A = (CH2)nCO, SO2, S(O), NHCO, (CH2)nO2C, SCO, O(CH2)nCO, CH:CHCO; R2 = (un)branched C1-6 alkyl, CH:CH2, C.tplbond.CH, CH2CH:CH2,

CH2C.tplbond.CH, (CH2)nAr, (CH2)nOR, (CH2)nOAr, (CH2)nCO2R, (CH2)nNR5R6; R3, R4 = independently H, R2, (CH2)q-B-D; q = 0-3; B = bond, O2C(CH2)n, O(CH2)n, SO2NH(CH2)n, NHCO(CH2)n, CONH(CH2)n, NHCOCH:CH, CO2(CH2)n, CO(CH2)n, S(CH2)n, S(O)(CH2)n, SO2(CH2)n, CONHCR7:CR8, NHCOCR7:CR8, CONHCHR7CHR8, NHCOCHR7CHR8, CR7:CR8, CHR7CHR8; R7, R8 = independently H, R2; R7R8 = (CH2)m, m = 1-5; D = CO2R, CH2OR, CH2OR, CH2SR, CH2SR, CONR5R6, CN, NR5R6, OH, PhSO2NHCO, CF3CONHCO, CF3SO2NHCO, H2NSO2, H, acid replacement group such as tetrazole; R9 = H, (un)branched C1-6 alkyl, (CH2) nCO2R, (CH2) nOAr, (CH2) nAr, (CH2) nNR5R6; R10 = OH, NH2, Me, C1; R11 = CN, CO2H, CF3; Ar = 2- or 3-thienyl, 2- or 3-furanyl, 2-, 3- or 4-pyridinyl, (un)substituted Ph containing H, halo, Me, OMe, CF3, NO2, OH, NH2, OCF3, NHCOCH2CH2CO2H, or CH2CH2CO2H groups; R12, R13 = H, or taken with R3 and R4 form a double bond] are disclosed. I are lpha-substituted Trp-Phe derivs. useful as agents in the treatment of obesity, hypersecretion of gastric acid in the gut, gastrin-dependent tumors, colorectal tumors, or as antipsychotics. Further, compds. I are antianxiety agents, antiulcer agents, antidepressant agents, and are agents useful for preventing the withdrawal response produced by chronic treatment or use followed by chronic treatment followed by withdrawal from nicotine, diazepam, alc., cocaine, caffeine, or opioids. Also disclosed are pharmaceutical compns. and methods of treatment using the dipeptoids as well as processes for preparing them and novel intermediates useful in their preparation An addnl. feature of the invention is the use of the subject compds. to prepare pharmaceutical and diagnostic compns. Thus, methyltryptophan derivative II, prepared from tert-butoxycarbonyl-Lphenylalaninol, 2-adamantyloxycarbonyl- $\alpha$ -methyl-D-tryptophan, and monomethyl fumarate, displayed Ki =  $0.00008 \mu M$  in a central cholecystokinin binding assay.

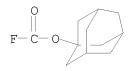
IT 62087-82-5, 1-Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of [(poly)cycloalkoxycarbonyl]methyltryptophan derivs. as anxiolytics and cholecystokinin activity-modifying agents)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 64 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:121360 CAPLUS

DOCUMENT NUMBER: 126:131662

TITLE: Preparation of diterpene and benzolactam phorboids as

protein kinase C modulators

INVENTOR(S): Driedger, Paul E.; Quick, James PATENT ASSIGNEE(S): Procyon Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 13

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9640614 W: JP	A1	19961219	WO 1996-US9710	19960607
RW: AT, BE, CH,	DE, DK	E, ES, FI,	FR, GB, GR, IE, IT,	LU, MC, NL, PT, SE
US 5891870	A	19990406	US 1995-472871	19950607
US 5955501	A	19990921	US 1995-480191	19950607
US 6080784	A	20000627	US 1995-480251	19950607
JP 08268961	A	19961015	JP 1996-69274	19960228
PRIORITY APPLN. INFO.:			US 1995-472871	A 19950607
			US 1995-472890	A 19950607
			US 1995-480191	A 19950607
			US 1995-480251	A 19950607
			US 1986-872812	B2 19860611
			JP 1987-503773	19870610
			US 1987-61299	YY 19870610
			US 1989-322851	B2 19890313
			US 1989-322881	B3 19890313
			US 1990-537885	B2 19900614
			US 1990-559296	B2 19900730
			US 1990-559701	A2 19900730
			US 1991-664396	A2 19910304
			US 1991-664397	B2 19910304
			US 1993-120643	A2 19930913

AB The diterpene and benzolactam phorboids I-D ( I represents a radical derived from a phorbol- or daphnane-type diterpenoid compound, which compound binds reversibly or irreversibly to a diacylglycerol-type receptor and/or activates any form of protein kinase C, and contains a hydroxylmethyl or 1-hydroxyethyl group bonded to C-6, and contains at least one substituent other than H or HO at C-12 and D is a polar group attacher to carbon 13) and I-D may not be 12-O-methylphorbol, 12-O-ethylphorbol or compds. of the exact phorbol; structure with acyl groups at the 12-hydroxy group. Thus, 20-O-[diphenyl(4-methoxyphenyl)methyl]-13-O-(isopropyldimethylsilyl)phorbol was treated with 4-(9,10-dihydrophenanthren-2-yl)butyric anhydride followed by desilylation to give phorbol 12-[4-(9,10-dihydrophenanthren-2-yl)]butyrate (II). The compds. were tested for antiinflammatory, anti-HIV, and anticancer activity. Thus, II had a ID50 of 12 μM against human RPMI-7272 melanoma cells.

IT 62087-82-5, Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of diterpene and benzolactam phorboids as protein kinase C modulators)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

F-C-0

L4 ANSWER 65 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1996:578907 CAPLUS

## Page 83

DOCUMENT NUMBER: 126:8576

TITLE: Amino acids and peptides. Part 45. Development of a

new  $N\pi$ -protecting group of histidine,

 $N\pi$ -(1-adamantyloxymethyl)histidine, and its

evaluation for peptide synthesis

Okada, Yoshio; Wang, Jidong; Yamamoto, Takeshi; Mu, AUTHOR(S):

Yu; Yokoi, Toshio

CORPORATE SOURCE: Fac. Pharmaceutical Sci., Kobe Gakuin Univ., Kobe,

651-21, Japan

SOURCE: Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1996), (17),

2139-2143

CODEN: JCPRB4; ISSN: 0300-922X

Royal Society of Chemistry PUBLISHER:

DOCUMENT TYPE: Journal English LANGUAGE:

OTHER SOURCE(S): CASREACT 126:8576

 $N\pi-(1-Adamantyloxymethyl)$  histidine, His $(N\pi-1-Adam)$ , is prepared and its properties are examined The 1-Adom group can be easily removed by trifluoroacetic acid and it is stable to 20% piperidine-DMF and 1 mol dm-3 NaOH. His  $(N\pi-1-Adom)$  derivs. can suppress racemization during coupling reactions. His  $(N\pi-1-Adom)$  can be used in solid-phase peptide synthesis in combination with fluoren-9-ylmethoxycarbonyl (Fmoc) as an

 $N\alpha$ -protecting group. TSH-releasing hormone is successfully

synthesized by using His(N $\pi$ -1-Adom).

ΙT 177093-80-0P

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(development and use of the adamantyloxymethyl protective group for solid-phase preparation of histidine-containing peptides)

177093-80-0 CAPLUS RN

Tricyclo[3.3.1.13,7]decane, 1-(chloromethoxy)- (CA INDEX NAME) CN

ANSWER 66 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:569675 CAPLUS

DOCUMENT NUMBER: 125:300266

TITLE: Absolute Kinetics of Alkoxychlorocarbene Fragmentation Moss, Robert A.; Ge, Chuan-Sheng; Maksimovic, Ljiljana AUTHOR(S): Department of Chemistry, Rutgers The State University CORPORATE SOURCE:

of New Jersey, New Brunswick, NJ, 08903, USA Journal of the American Chemical Society (1996),

118(40), 9792-9793

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

Alkoxychlorocarbenes, ROCCl, generated by the photolysis of

3-alkoxy-3-halodiazirines in MeCN, fragmented to ion pairs [R+ OC Cl-] from which products were derived. Competitively, the carbenes were

SOURCE:

intercepted by HCl or traces of water. The absolute rate consts. derived for carbene fragmentation in MeCN-pyridine (where HCl was scavenged), were determined by laser lash photolysis: R = benzyl, k = 0.69-1.3 + 106 s-1; R = (1-adamantyl)methyl, k = 2.8-5.2 + 106 s-1; and R = neopentyl, k= 0.3-1.3 + 106 s-1. (The ranges shown for k represent detns. by direct or double reciprocal kinetic analyses.). Principal products (in MeCN), as a function of R, included R = benzyl; benzyl chloride (63%) and N-benzyl acetamide (37%, Ritter reaction); R = (1-adamantyl)methyl; 1-homoadamantyl chloride (61.8%), (1-adamantyl)methyl chloride (2.7%), N-1-homoadamantyl acetamide (11.3%), 1-homoadamantanol (5.5%), (1-adamanty1) methyl dichloromethyl ether (16.3%), and (1-adamanty1) methyl formate (2.4%); R = neopentyl: 2-methyl-2-butene (13.8%), 2-methyl-1-butene (26.5%), 2-chloro-2-methylbutane (4.0%), neopentyl dichloromethyl ether (51.6%), and neopentyl formate (3.4%). The mechanistic origins of the products are discussed. In particular, distinction is made between the ion pair (carbene fragmentation) products and the HCl (dichloromethyl ethers) and water (formates) carbene interception products. A strong solvent effect was noted; in hexane, the carbenes were slow to fragment and carbene dimerization became the chief reaction pathway.

IT 182802-27-3

RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent) (absolute kinetics of alkoxychlorocarbene fragmentation)

RN 182802-27-3 CAPLUS

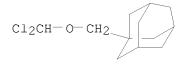
CN Methylene, chloro(tricyclo[3.3.1.13,7]dec-1-ylmethoxy)- (9CI) (CA INDEX NAME)

IT 182802-46-6P

RL: SPN (Synthetic preparation); PREP (Preparation) (absolute kinetics of alkoxychlorocarbene fragmentation)

RN 182802-46-6 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(dichloromethoxy)methyl]- (CA INDEX NAME)



L4 ANSWER 67 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:467267 CAPLUS

DOCUMENT NUMBER: 125:196383

TITLE: Preparation of peptidealdehyde analogs as trypsin

inhibitors for treatment of pancreatitis.

INVENTOR(S): Brunck, Terence K.; Pepe, Michael G.; Pearson, Daniel

A.; Webb, Thomas R.

PATENT ASSIGNEE(S): Corvas International, Inc., USA

U.S., 22 pp., Cont.-in-part of U.S. Ser. No. 828,388, SOURCE:

> abandoned. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA'	PATENT NO.			KIND DATE		APPLICATION NO. DATE
	5534498 9314779		 А А		19960709 19930805	
WO	W: CA,	JP	A	Ι.	19930000	5 WO 1993-05906 19950129
	RW: AT,	BE,	CH, DE	, DK,	ES, FR,	, GB, GR, IE, IT, LU, MC, NL, PT, SE
EP	627925		A	1 :	19941214	4 EP 1993-905778 19930129
EP	627925		В	1 :	20040929	9
	R: AT,	BE,	CH, DE	, DK,	ES, FR,	, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
AT	277943		T		20041015	5 AT 1993-905778 19930129
CA	2128711		С		20050111	1 CA 1993-2128711 19930129
US	5714580		A		19980203	3 US 1995-455974 19950531
PRIORIT	Y APPLN.	INFO.	:			US 1992-828388 B2 19920130
						US 1993-11666 A 19930129
						WO 1993-US906 W 19930129

OTHER SOURCE(S): MARPAT 125:196383

R-A1-A2-A3 (R = hydrophobic group; A1 = Glu, Asp, and equivalent; A2 = Pro and equivalent; A3 = argininealdehyde and equivalent), were prepared Thus, BOC-Asp-Pro-Arg-al, prepared by solid phase synthesis on a semicarbizide support, inhibited trypsin with  $Ki = 0.00045 \mu M$ , and reduced amylase activity in mice injected with caerulein.

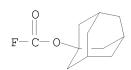
62087-82-5, Adamantyloxycarbonyl fluoride ΤT

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of peptidealdehyde analogs as trypsin inhibitors for treatment of pancreatitis)

62087-82-5 CAPLUS RN

Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME) CN



ANSWER 68 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

1996:356075 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 125:141870

TITLE: Effect of pressure on the rate of solvolysis. II. Reactions of methyl and phenyl chloroformates and

1-adamantyl derivatives

AUTHOR(S): Kwun, Oh Cheun; Kim, Jeong Rim; Kyong, Jin Burm; Lee,

Young Hoon; Kim, Jong Chul

CORPORATE SOURCE: Dep. Chem., Hanyang Univ., Ansan, 425-791, S. Korea SOURCE:

Journal of the Korean Chemical Society (1996), 40(5),

327-332

CODEN: JKCSEZ; ISSN: 1017-2548

PUBLISHER: Korean Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: Korean

AB The rates of solvolysis of Me chloroformate, Ph chloroformate and 1-adamantyl derivs. in binary solvent mixts. have been measured by a conductometric method at various temps. and pressures. The activation parameters were estimated from the rate consts. The activation volume and the activation entropy are both neg., but the activation enthalpy is pos. This behavior is discussed in terms of electrostriction of solvation. Reactivities were also estimated from the correlation of the activation vols. with the activation entropies. From these results, it could be estimated that the solvolyses of 1-adamantyl fluoroformate (in aqueous TFE) and 1-adamantyl tosylate are unimol. reactions, while the solvolyses of Me chloroformate, Ph chloroformate and 1-adamantyl fluoroformate (in aqueous alc.) proceed via a bimol. mechanism.

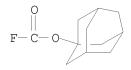
IT 62087-82-5, 1-Adamantyl fluoroformate

RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(pressure effect on solvolysis kinetics of)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 69 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:243788 CAPLUS

DOCUMENT NUMBER: 125:11440

TITLE: Development of a new  $N\pi$ -protecting group for histidine,  $N\pi$ -1-adamantyloxymethylhistidine

AUTHOR(S): Okada, Yoshio; Wang, Jidong; Yamamoto, Takeshi; Mu, Yu

CORPORATE SOURCE: Fac. Pharmaceutical Sci., Kobe Gakuin Univ., Kobe,

651-21, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1996), 44(4),

871-3

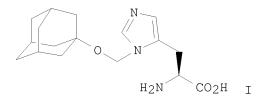
CODEN: CPBTAL; ISSN: 0009-2363 Pharmaceutical Society of Japan

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 125:11440

GΙ

PUBLISHER:



AΒ  $N\pi-1$ -Adamantyloxymethylhistidine (I) was prepared, and the properties of the 1-adamantyloxymethyl (1-Adom) group were examined 1-Adom group can be easily removed by TFA; it is stable to 20% piperidine/DMF and 1N NaOH. Derivs. of I can suppress racemization during coupling reaction. TRH was successfully synthesized using I.

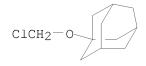
177093-80-0P ΤТ

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, peptide coupling, and deprotection reactions of (adamantyloxymethyl)histidine derivs.)

177093-80-0 CAPLUS RN

Tricyclo[3.3.1.13,7]decane, 1-(chloromethoxy)- (CA INDEX NAME) CN



AUTHOR(S):

ANSWER 70 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:112937 CAPLUS

DOCUMENT NUMBER: 124:232806

TITLE: Synthesis of esters of dihydroartemisinin and

> $11\alpha$ -hydroxy- $12\alpha$ -dihydroartemisinin Li, Ying; Zhang, Huibin; Ye, Yunpeng

CORPORATE SOURCE: Shanghai Inst. Materia Med., Academia Sinica,

Shanghai, 200031, Peop. Rep. China

SOURCE: Zhongguo Yaowu Huaxue Zazhi (1995), 5(2), 127-30

CODEN: ZYHZEF; ISSN: 1005-0108

PUBLISHER: Zhongguo Yaowu Huaxue Zazhi Bianjibu

DOCUMENT TYPE: Journal LANGUAGE: Chinese

In order to search for new derivs. of artemisinin with more stability and AΒ higher antimalarial activity, 7 esters of  $12\alpha$ -dihydroartemisinin and  $11\alpha\text{-hydroxy-}12\alpha\text{-dihydroartemisinin}$  were synthesized and tested in mice against chloroquine-resistant Plasmodium berghei. On the basis of the observation of their stability, the bulky substituent groups were considered to be favorable to stability of these compds. While derivs. of  $12\alpha$ -dihydroartemisinin were as active as artemisinin, the derivs. of 11-hydroxy- $12\alpha$ -dihydroartemisinin were considerably less active than artemisinin. This demonstrated that introduction of a hydroxy group into 11-position resulted in reduction of antimalarial activity.

ΙT 62087-82-5, 1-Adamantyl fluoroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

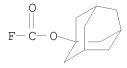
(synthesis of antimalarial esters of  $12\alpha$ -dihydroartemisinin and

## Page 88

 $11\alpha$ -hydroxy- $12\alpha$ -hydroartemisinin)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 71 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:55475 CAPLUS

DOCUMENT NUMBER: 124:232942

TITLE: Oxidative azidonation of glycals using the reagent

combination PhIO/TMSN3: synthesis of diaminopyrans

AUTHOR(S): Magnus, Philip; Roe, Michael B.

CORPORATE SOURCE: Dep. Chemistry Biochemistry, Univ. Texas Austin,

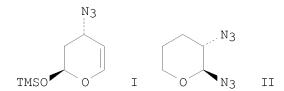
Austin, TX, 78712, USA

SOURCE: Tetrahedron Letters (1996), 37(3), 303-06

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier DOCUMENT TYPE: Journal LANGUAGE: English

GΙ



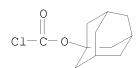
AB Dihydropyrans react with (PhIO)n/TMSN3 to give 3-azido adducts, e.g. I, and with (PhIO)n/TMSN3/TEMPO(cat) to give 2,3-bis-azido adducts, e.g. II, which can be further elaborated into amino pyrans.

IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative azidolysis of glycals using the reagent combination
 PhIO-TMSN11in synthesis of diaminopyrans)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 72 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:846677 CAPLUS

DOCUMENT NUMBER: 123:257084

TITLE: Preparation of arteannuin derivatives as drugs

INVENTOR(S): Li, Ying; Jiang, Hongjian; Pan, Jianping

PATENT ASSIGNEE(S): Shanghai Medicines Institute Chinese Academy of

Sciences, Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 48 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
CN 1087638	 А	19940608	CN 1993-112454	-	19930611
CN 1038416	В	19980520			
PRIORITY APPLN. INFO.:			CN 1992-113801	Α	19921204
OTHER SOURCE(S):	MARPAT	123:257084			
GI					

CH3

O

CH3

CH3

CH3

AB The title compds. [I;; X = -O-O-, -O-; Y = H, OH; Z = -O-, -OCO-; R = alkaline or non-alkaline substituent], useful as parasiticides, antitumors, and immunoregulators and for the treatment of Alzheimer's disease, (no data), are prepared from dihydroarteannuin via etherification, esterification, oxidation, aminolysis, hydrolysis and Mannich reaction. Thus, dehydrodihydroarteannuin in acetone containing N-methylmorpholine N-oxide was treated with osmium tetroxide at room temperature for 24 h to give 94% a mixture

of epimers I [X = -0-0-, Y =  $\alpha$ -OH, ZR =  $\alpha$ -,  $\beta$ -OH]. Water soluble salts from aminoarteannuin and organic or inorg. acids can form products

which are acceptable to human bodies and have multibiol. activities.

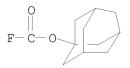
IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of arteannuin derivs. as drugs)

Ι

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 73 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:835487 CAPLUS

DOCUMENT NUMBER: 123:257269

TITLE: Preparation of viricidal nucleotide analogs

INVENTOR(S): Bischofberger, Norbert W.; Jones, Robert J.; Arimilli,

Murty N.; Lin, Kuei-Ying; Louie, Michael S.; McGee, Lawrence R.; Prisbe, Ernest J.; Lee, William A.;

Cundy, Kenneth C.

PATENT ASSIGNEE(S): Gilead Sciences, Inc., USA

SOURCE: PCT Int. Appl., 154 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PA:	TENT NO.			KINI	D DATE	APPLICATION NO.		DATE	
WO	W: AM, GE, NL, RW: KE,	AT, HU, NO, MW,	AU, JP, NZ, SD,	BB, KE, PL, AT,	BG, BR, BY, KG, KP, KR, PT, RO, RU, BE, CH, DE,	WO 1994-US10539 CA, CH, CN, CZ, DE, KZ, LK, LT, LU, LV, SD, SE, SI, SK, TJ, DK, ES, FR, GB, GR, CI, CM, GA, GN, ML,	DK, MD, TT, IE,	ES, FI, GB, MG, MN, MW, UA, US, UZ, IT, LU, MC,	
CA CA AU AU	5656745 2171743 2171743 9478752 691527 719273			A A1 C	19970812 19950323 20071120 19950403 19980521	US 1993-123483 CA 1994-2171743 AU 1994-78752		19930917 19940916 19940916	***
BR JP US US US JP JP		BE, 94 65 79 98 82	CH,	DE, A T A B1	DK, ES, FR, 19970107 19970624 19980825 20010501 20011115 20041202 20060713 20061026	GB, GR, IE, IT, LI, BR 1994-7510 JP 1994-509394 US 1996-617849 US 1999-247497 US 2001-801164 US 2004-882022 JP 2005-361122 JP 2006-159159	LU,	MC, NL, PT, 19940916 19940916 19960506 19990210 20010307 20040629 20051214 20060607	SE

US 1998-71420 B1 19980501 US 1999-247497 A1 19990210 US 2001-801164 B1 20010307 US 2004-778856 B1 20040213

OTHER SOURCE(S): MARPAT 123:257269
GI For diagram(s), see printed CA Issue.

AB Nucleotide analogs [I; B = heterocyclic base; L1, L2 = amino acid or polypeptide residue; Z = (un)substituted 5-membered-ring-containing (un)substituted hydrocarbyl residue; the dotted lines represent facultative bonds], useful as antiviral agents, antitumor agents (no data), and antineoplastic agents (no data), which are further characterized by the presence of an amidate-linked amino acid or an ester-linked group which is bonded to the P atom of phosphonate nucleotide analogs, are prepared and their viricidal activity against HSV-1 and HSV-2 (strain 413-92) viruses presented. I comprise a phosphoamidate or ester bond that is hydrolyzed in vivo to yield a corresponding phosphonate nucleotide analog and methods and intermediates for I synthesis and use are also described.

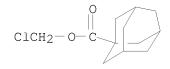
IT 71570-32-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of viricidal nucleotide analogs from)

RN 71570-32-6 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, chloromethyl ester (CA INDEX NAME)



L4 ANSWER 74 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:812991 CAPLUS

DOCUMENT NUMBER: 123:228919

TITLE: Preparation of substituted di- and tripeptide inhibitors of protein:farnesyl transferase

INVENTOR(S): Bolton, Gary Louis; Creswell, Mark Wallace; Hodges,

John Cooke; Wilson, Michael William

PATENT ASSIGNEE(S): Warner Lambert Co., USA SOURCE: PCT Int. Appl., 67 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT NO.					KIND DATE				APPLICATION NO.						DATE			
WO	WO 9512612				 A1	_	 1995	0511	,	WO 1	 994-1	 US11	 553		1	19941012		
	W: AM, AU, BG, RO, RU, SI,			•	CA,	CZ,	EE,	FI,	GE,	HU,	JP,	KG,	KR,	NO,	NZ,	PL,		
	RW:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE	
CA	2170	766			A1		1995	0511	1	CA 1	994-	2170	766		1	9941	012	

OTHER SOURCE(S): MARPAT 123:228919

GΙ

AΒ Novel protein: farnesyl transferase enzyme inhibitors I [n = 1, 2; A =COR3, CO2R3, CONHR3, CSR3, C(S)OR3, CSNHR3, CF3SO2, aryl-SO2, alkyl-SO2; R3 = alkyl, (CH2)m-cycloalkyl, (CH2)m-aryl, (CH2)m-heteroaryl, (CH2) mO-alkyl; m = 0-3; R, Y, Z = independently H, Me; R1 = H, CO-aryl, (CH2)m-aryl, O(CH2)m-cycloalkyl, O(CH2)m-aryl, O(CH2)m-heteroaryl, (CH2)mO-alkyl, located at the meta or para position; X = 1-4 substituents H, alkyl, CF3, F, Cl, Br, iodo, HO, MeO, NO2, NH2, NMe2, OPO3H2, CH2PO3H2; R2 = NR(CH2)nCO2R3, NR(CH2)nCONHR3, NR(CH2)nR3, NR(CH2)nCH2OR4, NR(CH2)nCH2SR4, NRCH(COR5)(CH2)n-heteroaryl, NRCH(COR5)(CH2)nOR3, NRCH(COR5)(CH2)nSR3, etc.; R4 = H, R3; R5 = OH, NH2, OR3, NHR3], optical isomers, diastereomers, or pharmaceutically acceptable salts thereof are claimed and described, as well as methods for preparation and pharmaceutical compns., which are useful in controlling tissue proliferative diseases, including cancer and restenosis. Thus, PhCH2O2C-D-His-L-Tyr(CH2Ph)-L-Ser(CH2Ph)-NHEt, prepared via standard solution peptide coupling reactions, inhibited protein: farnesyl transferase with IC50 =  $0.028 \mu M$ .

IT 5854-52-4, 1-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of substituted di- and tripeptide inhibitors of protein:farnesyl transferase)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

L4 ANSWER 75 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:795441 CAPLUS

DOCUMENT NUMBER: 123:313637

TITLE: Synthesis of tetrahydroquinoline enediyne core analogs

of dynemicin

INVENTOR(S): Magnus, Philip D.; Iliadis, Theodore; Eisenbeis, Shane

A.; Fairhurst, Robin A.

PATENT ASSIGNEE(S): University of Texas System, USA

SOURCE: U.S., 25 pp. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5442065 PRIORITY APPLN. INFO.:	A	19950815	US 1993-118862 US 1993-118862	19930909 19930909
OTHER SOURCE(S):	CASREA	ACT 123:31363	37; MARPAT 123:313637	

AB A process is described for the preparation of the core azabicyclo[7.3.1]tridecenediyne moiety I [X = CH:CH, CH2, O; R1 = H, 1-adamantyloxycarbonyl, CO2CH2CH2Cl, CO2Me; R2 = H, OMe; R3 = SePh, CH2COMe, OH, OBz, SPh, CHPhOH, H, CH2OMe] of the antitumor antibiotic dynemicin. The synthesis allows efficient production of the enediyne as a stable, compound in good yield from the adamantyl N-protected azabicyclo[7.3.1]tridecadiyne. 3-Hydroxy-6-methoxyquinoline was also prepared I [X = O, R1, R3 = H, R2 = H, OMe] gave T/C ratios of 170 and 175%, resp. at 2 mg/kg in a P388 leukemia assay.

IT 5854-52-4, 1-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of azabicyclotridecenediyne analogs of dynemicin from quinolinols)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

C1-C-0

L4 ANSWER 76 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:551204 CAPLUS

DOCUMENT NUMBER: 122:282216

TITLE: Method for dosing antiviral hydroxy-substituted

nucleotide therapeutic compounds using the internally

cyclized analogs, and preparation of the cyclized

analogs

INVENTOR(S): Alexander, Petr; Arimilli, Murty N.; Bischofberger,

Norbert W.; Hitchcock, Michael J. M.

PATENT ASSIGNEE(S): Gilead Sciences, Inc., USA

SOURCE: PCT Int. Appl., 77 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PA.	PATENT NO.				KIND DATE			APPL	ICAT	ION :	NO.		D.	ATE				
WO	9507	 919			A1	_	1995	0323	1	WO 1	994-	 US10	 467		1	9940'	916	
							BR,											
		GE,	HU,	JP,	KE,	KG,	KP,	KR,	KΖ,	LK,	LT,	LU,	LV,	MD,	MG,	MN,	MW,	
		NL,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SI,	SK,	ΤJ,	TT,	UA,	US,	UZ,	VN
	RW:	ΚE,	MW,	SD,	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙE,	ΙΤ,	LU,	MC,	
		NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	ML,	MR,	NE,	SN,	TD,	ΤG
US	5656	745			A		1997	0812	1	JS 1	993-	1234	83		1	9930	917	
CA	2171	868			A1		1995	0323	(	CA 1	994-	2171	868		1	9940	916	
	9479	565			A		1995	0403		AU 1	994-	7956	5		1	9940	916	
AU	6905	87			В2		1998	0430										
EP	7192	74			A1		1996	0703		EP 1	994-	9304	41		1	9940	916	
	R:	ΑT,					ES,											SE
_	0950						1997	0624		JP 1	994-	5093	69		1	9940	916	
JP	2006	1827	79		A		2006	0713		JP 2	005-	3611	22		2	0051	214	
JP	2006	2908	98		A		2006	1026		JP 2	006-	1591	59		2	0060	607	
JP	2006	3068	82		A		2006	1109		JP 2	006-	1591	60		2	0060	607	
RIORIT	Y APP	LN.	INFO	.:					1	JS 1	993-	1234	83		A 1	9930	917	
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										JP 1	995-	5093	94		A3 1	9940	916	
									1	WO 1	994-	US10	467		W 1	9940	916	
	2112	(0)			~ - ~ -		.m 10	0 00	0016			100	000	016				

OTHER SOURCE(S): CASREACT 122:282216; MARPAT 122:282216

AB The internally cyclized congeners of hydroxy-substituted nucleotide analogs have been found to exhibit substantially lower toxicity in vivo

than their uncyclized analogs, while retaining essentially the same antiviral activity. This was unexpected because the prior art would have suggested that the cyclic analogs offered no significant advantages in respect to toxicity in vivo. This finding permits the administration of much greater doses of the cyclic congeners than otherwise would have been possible and/or allows the clinician to omit toxicity-ameliorating interventions. The cyclized analogs are disclosed, as are methods for their preparation. Thus, cidofovir (HPMPC) was reacted with N,N'-dicyclohexyl-4-morpholinecarboxamidine to form the corresponding cyclized HPMPC (cHPMPC). In a five day repeat dose toxicity study determining the nephrotoxicity of HPMPC and cHPMPC in rats, histolpathol. evaluation of animals treated with HPMPC (100 mg/kg) showed degenerative changes in the kidneys, while in animals treated with cHPMPC (100 and 250 mg/kg), no treatment-related changes in the kidney were seen.

IT 71570-32-6

RN

RL: RCT (Reactant); RACT (Reactant or reagent)
(antiviral cyclic analogs of hydroxy-substituted nucleotide therapeutic compds. with reduced cytotoxicity, and preparation of cyclized analogs)
71570-32-6 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, chloromethyl ester (CA INDEX NAME)

L4 ANSWER 77 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:520382 CAPLUS

DOCUMENT NUMBER: 122:264953

TITLE: Preparation of 2-[[[(2-(hydroxyamino)-2-oxoethyl]

amino]carbonyl]cyclohexanecarboxylates as angiotensin

converting enzyme inhibitors.

INVENTOR(S): Turbanti, Luigi; Giorgi, Raffaello; Bonaccorsi,

Fabrizio; Bugno, Cristiana Di; Subissi, Alessandro;

Criscuoli, Marco; Carganico, Germano Laboratorio Guidotti e C. SpA, Italy

PATENT ASSIGNEE(S): Laboratorio Guidotti e

SOURCE: Ger. Offen., 30 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: Facenc

FAMILY ACC. NUM. COUNT: 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
				-		
DE 4421515	A1	19941222	DE 1994-4421515		19940620	
FR 2706897	A1	19941230	FR 1994-7523		19940620	
FR 2706897	В1	19960126				
GB 2279345	A	19950104	GB 1994-12367		19940620	
PRIORITY APPLN. INFO.:			IT 1993-MI1329	Α	19930621	
OTHER SOURCE(S):	MARPAT	122:264953				
GI						

$$\begin{array}{c|c} R^3ON & R^1 \\ \hline \\ O & CO_2R^2 \end{array}$$

AB Title compds. [I; R1 = alkyl; R2 = H, alkyl, cycloalkyl, Ph, alkoxymethyl, 2-tetrahydrofurylmethyl, 2-(dialkylamino)ethyl, N-methylbenzamidylmethyl, etc.; R3 = H, alkoxycarbonyl, benzyloxycarbonyl, alkylcarabonyl, adamantylcarbonyl, (substituted) PhCO], were prepared Thus, cis-(1S,2R)-I (R1 = Me; R2 = CH2OCO2Et; R3 = H) inhibited angiotensin I-induced increase in blood pressure in rats with ED50 = 0.10  $\mu$ mol/kg i.v.

RN 71570-32-6 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, chloromethyl ester (CA INDEX NAME)

L4 ANSWER 78 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:408402 CAPLUS

DOCUMENT NUMBER: 122:188167

TITLE: Preparation of difluoropentapeptide derivatives as

antiinflammatory and analgesic agents.

INVENTOR(S): McIver, John McMillan

PATENT ASSIGNEE(S): Procter and Gamble Co., USA

SOURCE: PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT NO.					KIN	D	DATE		APPLICATION NO.						DATE			
						_												
WO 9414842				A1 19940707				1	WO 1	993-1	US12.	349		19931216				
	W:	ΑU,	BB,	BG,	BR,	BY,	CA,	CZ,	FΙ,	HU,	JP,	KP,	KR,	KΖ,	LK,	LV,	MG,	
		MN,	MW,	NO,	NZ,	PL,	RO,	RU,	SD,	SK,	UA,	UZ,	VN					
	RW:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	
		BF,	ΒJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	ML,	MR,	NE,	SN,	TD,	ΤG			
CA	2152	267			A1		1994	0707	(	CA 1	993-	2152.	267		1:	9931.	216	
CA 2152267			С		2001	0417												

AU 9458039	A	19940719	AU 1994-58039		19931216
AU 697299	В2	19981001			
EP 675901	A1	19951011	EP 1994-903677		19931216
R: AT, BE, CH	I, DE, DK	, ES, FR,	GB, GR, IE, IT, LI,	LU,	NL, PT, SE
HU 72977	A2	19960628	HU 1995-1844		19931216
BR 9307728	A	19990831	BR 1993-7728		19931216
RU 2141971	C1	19991127	RU 1995-113497		19931216
CZ 286126	В6	20000112	CZ 1995-1645		19931216
PL 177914	В1	20000131	PL 1993-309638		19931216
CN 1095072	A	19941116	CN 1993-119938		19931222
CN 1056615	В	20000920			
IN 181696	A1	19980905	IN 1993-DE1439		19931222
TW 402607	В	20000821	TW 1994-83100422		19940119
US 5760002	A	19980602	US 1994-318179		19941005
FI 9503106	A	19950713	FI 1995-3106		19950621
NO 9502485	A	19950822	NO 1995-2485		19950621
PRIORITY APPLN. INFO.:			US 1992-995217	P	19921222
			WO 1993-US12349	V	T 19931216
OTHER SOURCE(S).	маррат	122 • 1881	57		

OTHER SOURCE(S): MARPAT 122:188167

GΙ

Me Me Me NH3 O NH3 O NH4 NH2 NH2 NH2 
$$C_{F2}$$
 NH2  $C_{F2}$  NH2  $C_{F2$ 

AB X(CH2) nVZCHR1COCHR2CONHCHR3COCF2CONHCHR4CONHCHR5CO2Y [X = C4-15 cycloalkyl, C6-15 branched alkyl, aryl; n = 0-2; V = OC(0), N(Q)C(0), N(Q)C(S), C(O), SO2, P(O)(OH); Q = H, (unsatd.) alkyl; QX = atoms to form a C5-20 cyclic moiety Z = O, NH; when V = OC(O), Z = NH; R1, R2, R4 = (unsatd.) alkyl, cycloalkyl, aralkyl; R3, R5 = (CH2) mANH2, (CH2) mABC(NH2):NH; m = 1-6; A = bond, p-phenylene or p-cyclohexylene; B =

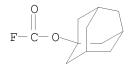
bond, NH; Y = H, Me], were prepared as antiinflammatories and analgesics (no data). Thus, title compound (I) was prepared via reaction of aldehyde II with BrF2CCO2Et in the presence of Zn in refluxing THF to give intermediate III. Drug formulations containing title compds. are given.

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of difluoropentapeptide derivs. as antiinflammatory and
 analgesic agents)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 79 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:246509 CAPLUS

DOCUMENT NUMBER: 122:32016

TITLE: Preparation of N-substituted cycloalkyl and

polycycloalkyl  $\alpha$ -substituted

tryptophanylphenylalanine derivatives as drugs.

INVENTOR(S): Horwell, David C.; Pritchard, Martyn C.; Richardson,

Reginald S.; Roberts, Edward; Aranda, Julian

PATENT ASSIGNEE(S): Warner-Lambert Co., USA

SOURCE: U.S., 105 pp. Cont.-in-part of U.S. Ser. No. 542,222,

abandoned. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5278316	 А	19940111	US 1990-629809	19901219
AU 9059628	A	19910117	AU 1990-59628	19900628
AU 644088	В2	19931202		
ZA 9005057	A	19920226	ZA 1990-5057	19900628
EP 479910	A1	19920415	EP 1990-911185	19900628
R: AT, BE, CH,	DE, DK	, ES, FR, G	GB, IT, LI, LU, NL, SE	
JP 04506079	T	19921022	JP 1990-510126	19900628
JP 2972331	B2	19991108		
CA 2060652	С	20010821	CA 1990-2060652	19900628
CA 2344707	С	20020730	CA 1990-2344707	19900628
CN 1049165	A	19910213	CN 1990-106804	19900629
FI 106197	B1	20001215	FI 1991-6060	19911220
NO 9105122	A	19920227	NO 1991-5122	19911227
NO 301831	B1	19971215		
US 5631281	А	19970520	US 1994-235814	19940428
US 5580896	A	19961203	US 1995-447142	19950522
US 5622983	A	19970422	US 1995-447141	19950522

PRIORITY APPLN. INFO.: US 1989-374327 B2 19890629 US 1989-422486 B2 19891016 US 1990-530811 B2 19900605 NZ 1990-234264 A 19900627 B2 19900628 US 1990-545222 US 1990-580811 B2 19900605 CA 1990-2060652 A3 19900628 WO 1990-US3553 A 19900628

> US 1992-958196 B2 19921007 US 1994-235814 B3 19940428

A3 19901219

US 1990-629809

OTHER SOURCE(S): MARPAT 122:32016

GΙ

R1ANHCR2CONR9CR3R12CR4R13Ar

AΒ Title compds. [I; R1 = (substituted) C3-12 (poly)cycloalkyl; A = (CH2)nCO, SO2, SO, NHCO, (CH2) nO2C, SCO, O(CH2) nCO, HC: CHCO; n = 0-6; R2 = alkyl, HC:CH2, C.tplbond.CH, (CH2)nAr, (CH2)nOAr, etc.; R3, R4 = H, R2, etc.; R9 = H, alkyl, (CH2)nAr, (CH2)nOAr, etc.; R12, R13 = H, or each can be taken with R3 and R4 resp. to form a moiety doubly bonded to the C atom; Ar =(substituted) mono- or polycyclic carbo- or heterocyclic ring; the indole ring may be further substituted], were prepared I are cholecystokinin or gastrin agonists/antagonists with antianxiety, antiulcer, and antidepressant activity and are useful for preventing the withdrawal response produced by nicotine, diazepam, alc., cocaine, caffeine, or opiates. Thus,  $[R-(R^*,R^*)]-4-[[2-[[3-(1H-indol-3-yl))-2-methyl-1-oxo-2-$ [[(tricyclo[3.3.1.13,7]dec-2-yloxy)carbonyl]amino]propyl]amino]-1phenylethyl]amino]-4-oxobutanoic acid (II) (prepared in 7 steps starting from BOC-D-2-phenylglycinol) bound to central CCK receptors with Ki = 0.0085  $\mu\text{M}$ , and inhibited feeding in rats with MPE50 = 17.4 mg/kg i.p. (MPE = maximum possible effect, i.e., zero food intake). II showed activity identical to that of diazepam in a light/dark anxiety test using mice.

IT 62087-82-5, 1-Adamantyl fluoroformate RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of cholecystokinin analog)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

L4 ANSWER 80 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:508091 CAPLUS

DOCUMENT NUMBER: 121:108091

TITLE: 1-Adamantyloxycarbonyl: a novel protecting group for

phenols carrying strongly electron-withdrawing

substituents

AUTHOR(S): Niculescu-Duvaz, Ion; Springer, Caroline J.

CORPORATE SOURCE: Cancer Res. Campaign Cent. Cancer Therapeut., Inst.

Cancer Res., Sutton/Surrey, SM2 5NG, UK

SOURCE: Journal of Chemical Research, Synopses (1994), (6),

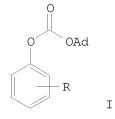
242 - 3

CODEN: JRPSDC; ISSN: 0308-2342

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 121:108091

GΙ

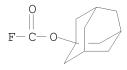


AB A novel protection method for phenols carrying strongly electron-withdrawing substituents which involves reaction of 1-adamantyl fluoroformate with fluorophenols, nitrophenols and fluoronitrophenols has been developed. Fifteen new compds., I (Ad = 1-adamantyl, R = 4-NO2, 2-F-4-NO2, 2,6-F2, 2,3,4,5,6-F5, etc.), have been synthesized by this route.

IT 62087-82-5, 1-Adamantyl fluoroformate
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with phenols)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 81 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:435184 CAPLUS

DOCUMENT NUMBER: 121:35184

## Page 101

TITLE: Preparation of cephalosporin derivatives as

bactericides for oral administration.

INVENTOR(S): Kobori, Takeo; Fujita, Mikako; Yamamoto, Rumi; Hyama,

Tamejiro; Nagate, Takatoshi

PATENT ASSIGNEE(S): Sagami Chem Res, Japan; Taisho Pharma Co Ltd

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06025256	A	19940201	JP 1992-204281	19920709
PRIORITY APPLN. INFO.:			JP 1992-204281	19920709
OTHER SOURCE(S):	MARPAT	121:35184		

GΙ

NOMe CONH S CH=CH
$$\stackrel{R^2}{\longrightarrow}$$
 NOMe NOMe

AB The title compds. I [R1 = H, ester residue easily cleaved by hydrolysis; R2 = H, alkyl] are prepared Title compound [(Z)(Z)]-II (R = H) (III) (preparation

given) in vitro exhibited MIC of 0.78  $\mu g/mL$  against Staphylococcus aureus 209P-JC and Escherichia coli NIHJ JC-2. 0.5 H after oral administration of [(Z)(Z)]-II (R = CH2OCOCMe3) (IV) at 20 mg/kg to mice, the serum concentration of IV was 15.8  $\mu g/mL$ . 0.5 H after oral administration of III to mice at 20 mg/kg, the serum concentration of III was 1.4  $\mu g/mL$ .

IT 155723-37-8

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, in preparation of bactericide)

RN 155723-37-8 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, 1-iodoethyl ester (CA INDEX NAME)

L4 ANSWER 82 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:245556 CAPLUS

DOCUMENT NUMBER: 120:245556

TITLE: Preparation of taxane derivatives as antitumor agents

INVENTOR(S): Bourzat, Jean Dominique; Commercon, Alain

PATENT ASSIGNEE(S): Rhone-Poulenc Rorer SA, Fr.

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 9316060	A1 19930819	WO 1993-FR112	19930204
W: AU, CA, CZ,	FI, HU, JP, KR,	NO, NZ, PL, RU, SK, US	
RW: AT, BE, CH,	DE, DK, ES, FR,	GB, GR, IE, IT, LU, MC,	NL, PT, SE
FR 2687151	A1 19930813	FR 1992-1381	19920207
FR 2687151	B1 19940325		
AU 9335050	A 19930903	AU 1993-35050	19930204
EP 625148	A1 19941123	EP 1993-904152	19930204
R: AT, BE, CH,	DE, DK, ES, FR,	GB, GR, IE, IT, LI, LU,	NL, PT, SE
JP 07503477	T 19950413	JP 1993-513823	19930204
ZA 9300821	A 19930909	ZA 1993-821	19930205
FI 9403645	A 19940805	FI 1994-3645	19940805
NO 9402910	A 19940805	NO 1994-2910	19940805
PRIORITY APPLN. INFO.:		FR 1992-1381	A 19920207
		WO 1993-FR112	A 19930204

OTHER SOURCE(S): MARPAT 120:245556

GΙ

AB The title compds. I [Ar = aryl; R1 = H, acetyl; R = (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, Ph, etc.; a proviso is given], useful as antitumor agents (no data), were prepared Treatment of 4-acetoxy- $2\alpha$ -benzoyloxy- $5\beta$ , 20-epoxy-1-hydroxy-9-oxo- $7\beta$ ,  $10\beta$ -bis[(2,2,2-

 $\label{eq:carbonyloxy} \verb| trichloroethoxy) carbonyloxy | -11-taxen-13\alpha-yl \quad (2R,$ 

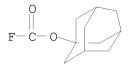
3S)-3-amino-2-hydroxy-3-phenylpropionate with iso-Pr chloroformate in the presence of NaHCO3, followed by deprotection, gave (2R,3S)-I (Ar = Ph, R = iso-Pr, R1 = H). A formulation containing I is given.

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of antitumor agent)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 83 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:135117 CAPLUS

DOCUMENT NUMBER: 120:135117

TITLE: Tetrapeptide CCK agonists: structure-activity studies

on modifications at the N-terminus

AUTHOR(S): Elliott, Richard L.; Kopecka, Hana; Bennett, Michael

J.; Shue, Youe Kong; Craig, Richard; Lin, Chun Wel; Bianchi, Bruce R.; Miller, Thomas R.; Witte, David G.;

et al.

CORPORATE SOURCE: Neurosci. Res. Div., Abbott Lab., Abbott Park, IL,

60064, USA

SOURCE: Journal of Medicinal Chemistry (1994), 37(2), 309-13

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal LANGUAGE: English

AB Analogs of the potent and selective tetrapeptide cholecystokinin-A (CCK-A) agonist Boc-Trp-Lys(CONHC6H4Me-2)-Asp-MePhe-NH2 (A-7163; Boc = Me3CO2C) in which the N-terminal Boc functionality was systematically replaced with various amides, ureas, carbamates, and sulfonamides of differing size, hydrophobicity, and stereoelectronic properties were prepared and optimized for potency, selectivity, stability, and efficacy. In general, these analogs maintained good potency and selectivity for the CCK-A receptor (guinea pig pancreas), as well as potent anorectic activity in rats. Those analogs exhibiting equal or superior activity compared to A-71623 but differing physicochem. properties may represent superior drug candidates.

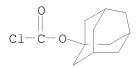
IT 5854-52-4, 1-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(acylation by, of tetrapeptide derivative, in preparation of cholecystokinin agonist)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 84 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:8953 CAPLUS

DOCUMENT NUMBER: 120:8953

TITLE: Stable isosteres of neurotensin C-terminal

pentapeptides derived by modification of the amide

function

AUTHOR(S): Christos, Thomas E.; Arvanitis, Argyrios; Cain, Gary

A.; Johnson, Alexander L.; Potorf, Richard S.; Tam, S.

William; Schmidt, William K.

CORPORATE SOURCE: Dupont Merck Pharm. Co., Wilmington, 19880-0353,

Germany

SOURCE: Bioorganic & Medicinal Chemistry Letters (1993), 3(6),

1035 - 40

CODEN: BMCLE8; ISSN: 0960-894X

DOCUMENT TYPE: Journal LANGUAGE: English

AB A series of amide bond modified neurotensin C-terminal pentapeptides has been prepared and tested for their in vivo analgesic properties. Reduced amide function and trans double bond isosteres showed analgesic activity.

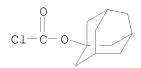
IT 5854-52-4, 1-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(acylation by, of aminomethylene and ethylene pseudopeptide derivs.)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 85 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:626432 CAPLUS

DOCUMENT NUMBER: 119:226432

TITLE: Preparation of tripeptide derivatives as analgesics

and antiinflammatories McIver, John McMillan

PATENT ASSIGNEE(S): Procter and Gamble Co., USA

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

INVENTOR(S):

PATENT NO. KIND DATE APPLICATION NO. DATE -----W: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, PL, RO, RU, SD RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG AU 9228827 19930521 AU 1992-28827 19921019 A 19911023 PRIORITY APPLN. INFO.: US 1991-780607 WO 1992-US8901 A 19921019

OTHER SOURCE(S): MARPAT 119:226432

AB X(CH2)nVZCHRCONHCHR1CONHCHR2COY [n = 0-2; R = (unsatd.) (cyclo)alkyl; R1 = R, aralkyl; R2 = (CH2)mANH2, (CH2)mABC(:NH)NH2; m = 1-5; A = bond, p-phenylene, 1,4-cyclohexanediyl; B = bond, NH; Y = H, CF3; Z = O, NH; V = CO2, NQCO, NQCS, CO, SO2, P(O)(OH); X = (cyclo)alkyl, aryl; Q = H, (unsatd.) alkyl; QX = cyclic moiety; the carbon bearing R has the D- or L-configuration; the carbons bearing R1, R2 have the L-configuration; with provisos], were prepared as an analgesics and antiinflammatories (no data). Thus, BOC-D-Phe-Phe-Arg-H.HOAc was prepared via coupling of BOC-D-Phe-Phe-OH (preparation given) with N-carbobenzyloxyamidino-2-aminovalerolactam.HCl (preparation given) using Et3N/NCP(O)(OEt)2 in CH2Cl2 followed by LiAlH4 reduction

and hydrogenolysis over Pd/C. Dosages and formulations of specific title compds. are given.

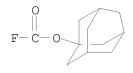
IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in prepn of tripeptide analgesic and antiinflammatory)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 86 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:617414 CAPLUS

DOCUMENT NUMBER: 119:217414

TITLE: Peptide aldehyde analogs for trypsin inhibitors INVENTOR(S): Brunck, Terence Kevin; Pepe, Michael Gary; Pearson,

Daniel Andrew; Webb, Thomas Roy Corvas International, Inc., USA

PATENT ASSIGNEE(S): Corvas International, Inc.

SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9314779 W: CA, JP	A1	19930805	WO 1993-US906	19930129

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE EP 627925 A1 19941214 EP 1993-905778 EP 627925 В1 20040929 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE JP 07503715 T 19950420 JP 1993-513488 19930129 US 1993-11666 US 5534498 19960709 19930129 20041015 AT 1993-905778 AT 277943 Τ 19930129 CA 2128711 С 20050111 CA 1993-2128711 19930129 PRIORITY APPLN. INFO.: US 1992-828388 A 19920130 US 1993-11666 A 19930129 WO 1993-US906 W 19930129

OTHER SOURCE(S): MARPAT 119:217414

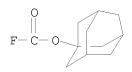
AB Peptide aldehyde analogs are disclosed which have substantial potency and specificity as inhibitors of mammalian pancreatic trypsin. The compds. of the invention are useful in the prevention and treatment of tissue damage or destruction associated with pancreatitis. Preparation of the analogs is described. Thus, N-t-butoxycarbonyl-L-Asp-L-Pro-L-argininal (I) (preparation given) had a Ki against trypsin of 0.00045  $\mu M$ . The effectiveness of I in an animal model for pancreatitis was also demonstrated.

IT 62087-82-5, Adamantyloxycarbonyl fluoride

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in peptide aldehyde analog preparation for trypsin inhibitor) RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 87 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:603857 CAPLUS

DOCUMENT NUMBER: 119:203857

TITLE: Preparation of modified peptides transportable into

the central nervous system

INVENTOR(S): Arvantis, Argyrios; Cain, Gary Avonn; Christos, Thomas

Eugene; Confalone, Pasquale Nicholas; Pottorf, Richard

Scott; Schmidt, William Koch

PATENT ASSIGNEE(S): Du Pont Merck Pharmaceutical Co., USA

SOURCE: PCT Int. Appl., 111 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9300359	A1	19930107	WO 1992-US4968	19920618
W: AU, CA, JP				
RW: AT, BE, CH,	DE, DK	, ES, FR, GB,	, GR, IT, LU, MC, NL,	SE
711 0000001	70.	10020125	711 1000 00001	100000010

AU 9222381 A 19930125 AU 1992-22381 19920618 PRIORITY APPLN. INFO.: US 1991-723616 A 19910627

WO 1992-US4968 A 19920618

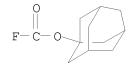
MARPAT 119:203857 OTHER SOURCE(S):

YWmXnA1-H-A-B-C-D-E-F-Z [Y = lipophilic moiety LCO, R(CH2)p (O(CH2)r; p, r = 0-6; L = (substituted) alkyl, perfluoroalkyl, cycloalkyl, bicycloalkyl, tricycloalkyl, etc.; R = cycloalkyl, heterocyclyl, (substituted) aryl; W = Arg, D-Arg, D-Lys, Pro, Nle, Lys, Orn, homoarginine, 2,4-diaminobutyric acid, 2,3-diaminopropionic acid, N-methylnorleucine, 4aminocyclohexylalanine residues; X = W, Ala, etc.; m, n = 0,1; A, A1, C, E = CONH, CONMe, NMeCO, CH2NH, CH2O, CH2S, CSNH, NHCONH, SOCH2, SO2CH2, NHSC, CH:CH, CH2CH2, CF2CF2, CF:CF, CF:CH, CH2CH(OH), cyclopropylene, 4,5-tetrazolyldiyl, etx.; H = Pro, N-methylaminobutyric acid residue; B = Tyr, Phe, Trp, naphthylalanine, phenylglycine,  $\beta$ -phenylproline residues; D = Ile, Leu, tert-leucine, phenylglycine residues; F = Leu, Val, Met; Z = OH, alkoxy], were prepared Thus, Q-Arg-Pro-Tyr-Ile-Leu-OH.HOAC (Q = 1-adamantanecarbonyl), prepared by solid phase coupling on phenylacetamidomethyl resin using BOC-protected amino acids and DCC/1-hydroxybenzotriazole, showed Ki = 144 nM in a neurotensin binding assay and ED50 = 14 mg/kg i.v. in the phenylquinone writhing test in mice.

62087-82-5, 1-Adamantyl fluoroformate ΤT RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, in preparation of neurotensin analog)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



ANSWER 88 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

1993:517787 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 119:117787

TITLE: Rationally designed 'dipeptoid' analogs of

cholecystokinin (CCK): N-terminal structure-affinity

relationships of  $\alpha$ -methyl-tryptophan derivatives

AUTHOR(S): Eden, J. M.; Higginbottom, M.; Hill, D. R.; Horwell,

D. C.; Hunter, J. C.; Martin, K.; Pritchard, M. C.;

Rahman, S. S.; Richardson, R. S.; Roberts, E.

CORPORATE SOURCE: Parke-Davis Neuroscience Research Centre, Cambridge,

CB2 2QB, UK

European Journal of Medicinal Chemistry (1993), 28(1), SOURCE:

CODEN: EJMCA5; ISSN: 0223-5234

DOCUMENT TYPE: Journal

LANGUAGE: English

The structure-affinity relationships (SAR) between the N-termini of a AB series of  $\alpha$ -methyltryptophan phenethylamide derivs. and the cholecystokinin (CCK) B receptor are discussed. A series of compds. R-X-DL- $\alpha$ MeTrp-NHCH2CH2Ph [I;  $\alpha$ MeTrp =  $\alpha$ methyltryptophan, R = cycloalkyl, bicycloalkyl, tricycloalkyl group, X = O2C, SCO, NHCO, CH2CO, S(O)] were prepared The CCK-B receptor binding

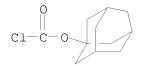
affinities of I are discussed. The SAR form part of a systematic program for the rational design of 'dipeptoid' analogs of the neuropeptide CCK.

Beginning with I (R = Me3C, X = O2C), the N-terminal moiety was systematically changed for groups of varying size, shape and lipophilicity until the optimal N-terminal group was obtained and the favored linking group chosen, resulting in RO2C-D- $\alpha$ MeTrp-NHCH2CH2Ph (R = 2-adamantyl), with an IC50 = 32 nM in the CCK-B receptor binding affinity assay.

IT 5854-52-4, 1-Adamantyl chloroformate
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation of, with methyltryptophan phenethylamide)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 89 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:496128 CAPLUS

DOCUMENT NUMBER: 119:96128

TITLE: Investigations with selective deblocking reagents for

Adpoc-protected amino acids and peptides

AUTHOR(S): Voelter, Wolfgang; Kalbacher, Hubert

CORPORATE SOURCE: Physiol. chem. Inst., Univ. Tuebingen, Tuebingen,

W-7400, Germany

SOURCE: Liebigs Annalen der Chemie (1993), (2), 131-6

CODEN: LACHDL; ISSN: 0170-2041

DOCUMENT TYPE: Journal LANGUAGE: German

OTHER SOURCE(S): CASREACT 119:96128

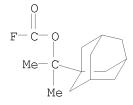
AB Selective reagents for the removal of the Adpoc (adamantylisopropoxycarbonyl) group have been developed. For this purpose several peptides containing tryptophan and N $\epsilon$ -tert-butoxycarbonyllysine have been synthesized. Among several acidolytic reagents, 0.1 N HCl/CF3CH2OH/CHCl3 (1:9:1) and 50% HCOOH/CF3CH2OH/CHCl3 (1:9:1) show high selectivity especially for the N $\epsilon$ -tert-butyloxycarbonyl group of lysine. Cleavage rates are determined by HPLC and TLC.

IT 74654-74-3

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with amino acids)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



AUTHOR(S):

ANSWER 90 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

1993:473082 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 119:73082

TITLE: Synthesis and application of N, N-bis-(1-

> adamantyloxycarbonyl) amino acids Nyasse, Barthelemy; Ragnarsson, Ulf

CORPORATE SOURCE: Biomed. Cent., Univ. Uppsala, Uppsala, S-751 23, Swed.

SOURCE: Acta Chemica Scandinavica (1993), 47(4), 374-9

CODEN: ACHSE7; ISSN: 0904-213X

DOCUMENT TYPE: Journal LANGUAGE: English

The preparation of novel N, N-bis(1-adamantyloxycarbonyl)amino acid derivs. has been undertaken and their properties studied. Among them, the p-nitrophenyl esters were subsequently applied to the stepwise synthesis of Leu-enkephalin. In the last coupling step, some hydantoin formation was encountered but it was nearly completely overcome by working with more concentrated solns. The preparation of a tyrosine derivative presented

special problems owing to the existence of the phenolic group in the precursor. The relative stability of 1-adamantyloxycarbonyl as N- and O-protecting groups was also studied.

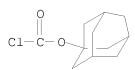
5854-52-4P, 1-Adamantyl chloroformate ΙT

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and acylation by, of amino acid esters)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



ANSWER 91 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

1993:254184 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 118:254184

TITLE: Kinetics of the solvolysis of 1-adamantyl

fluoroformate under high pressure

AUTHOR(S): Kyong, Jin Burm; Kevill, Dennis N.; Kim, Jong Chul CORPORATE SOURCE: Dep. Chem., Hanyang Univ., Ansan, 425-791, S. Korea SOURCE:

Journal of the Korean Chemical Society (1993), 37(1),

3 - 9

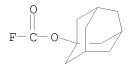
CODEN: JKCSEZ; ISSN: 1017-2548

DOCUMENT TYPE: Journal LANGUAGE: Korean

AB Specific rates of solvolysis of 1-adamantyl fluoroformate in hydroxylic solvents have been measured by an elec. conductivity method under various pressures. The activation parameters ( $\Delta$ V0.thermod.,  $\Delta$ B.thermod.,  $\Delta$ H.thermod.,  $\Delta$ S.thermod.) and average pressure within the solvation shell of the activated complex (charge development) have been estimated from the rates. Also, the selectivities for the formation of solvolysis products in aqueous ethanol have been determined by response-calibrated gas chromatog. The values of  $\Delta$ V0.thermod. and  $\Delta$ B.thermod. are both neg., but  $\Delta$ H.thermod. is pos. and  $\Delta$ S.thermod. is large and neg. This behavior is discussed in terms of electrostriction of solvation. The solvolysis has two major reaction

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 92 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:190951 CAPLUS

DOCUMENT NUMBER: 118:190951

TITLE: Solvolysis of 1-(3-noradamantyl)ethyl sulfonates

AUTHOR(S): Stoelting, D. T.; Shiner, V. J., Jr.

CORPORATE SOURCE: Dep. Chem., Indiana Univ., Bloomington, IN, 47405, USA

SOURCE: Journal of the American Chemical Society (1993),

115(5), 1695-705

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 118:190951

The title esters solvolyze in aqueous EtOH almost entirely to rearranged substitution products (2-methyl-1-adamantyl alc. and ether) at a rate about 1000 times faster than unstrained analogs; the reaction obeyed a non-first-order rate law, was not accompanied by O scrambling, and involved the production of large proportions of the rearranged tertiary 2-methyl-1-adamantyl sulfonate esters as reactive intermediates. The tertiary esters solvolyze to unrearranged substitution products at a rate 2-7 times faster than the noradamantyl isomers in clean first-order reactions accompanied by O scrambling. The formation of rearranged tertiary esters as reactive intermediates in the solvolyses of the secondary esters and the O scrambling during solvolysis of the tertiary esters both show that the solvolyses of the tertiary esters involve large proportions of internal return and are therefore not kc processes. In addition, solvent effects on the partitioning of the tertiary esters tight ion pair between covalent substrate and products are significant and lead

to a Grunwald-Winstein m for internal return that is about 0.5 less than that for solvent separation; this result provides an explanation for the larger-than-average m values observed for 1-adamantyl systems. The  $\beta$ -d3 rate effects for solvolysis for the 1-(3-noradamantyl)ethyl esters are in the narrow range of 1.14-1.15, smaller than the value of  $\approx 1.20$ shown by 3.3-dimethyl-2-butyl sulfonates and indicative of C atom  $\sigma$ -participation and strong C atom hyperconjugation. The accelerated solvolysis rates, the absence of internal return, and the lowered isotope effects clearly establish this solvolysis as a  $k\Delta$  process. Plots of log k values vs YOTs for the title esters give slopes (m) around 0.7; the m values for the adamantyl isomers are around 1. The differences between these plots for structurally very similar reactants solvolyzing with clearly different rate-determining steps are not large and indicate the hazards in using rate correlations to establish solvolytic reaction mechanisms, especially when comparing reactants with greater structural differences. higher homologs, 1-(3-noradamantyl)propyl sulfonate esters, behaved similarly.

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

C1-C-0

AUTHOR(S):

L4 ANSWER 93 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:169582 CAPLUS

DOCUMENT NUMBER: 118:169582

TITLE: Cholecystokinin dipeptoid antagonists: design,

synthesis, and anxiolytic profile of some novel CCK-A and CCK-B selective and mixed CCK-A/CCK-B antagonists Boden, P. R.; Higginbottom, M.; Hill, D. R.; Horwell,

D. C.; Hughes, J.; Rees, D. C.; Roberts, E.; Singh,

L.; Suman-Chauhan, N.; Woodruff, G. N.

CORPORATE SOURCE: Parke-Davis Neurosci. Res. Cent., Cambridge, CB2 2QB,

UK

SOURCE: Journal of Medicinal Chemistry (1993), 36(5), 552-65

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

AΒ The design, synthesis, and structure-activity relationships (SAR) for the development of selective dipeptoid ligands for both of the cholecystokinin (CCK) receptor subtypes CCK-A and CCK-B are described. The SAR developed is used to design a ligand with equal nanomolar binding affinity for both the CCK-A and CCK-B receptor. The CCK-B selective compds. are antagonists in electrophysiol. tests on the rat ventromedial nucleus of the hypothalamus with equilibrium constant Ke = 2.8 nM for I (R = 2-adamantyl) (II) and are also anxiolytic in the mouse light/dark box test with a min. ED = 0.01 mg/kg, s.c., for II. The CCK-A selective compds. are also competitive antagonists by the inhibition of CCK-8S-evoked amylase secretion from pancreatic acinar cells with Ke = 16 nM for the enantiomer of II (III). In electrophysiol. tests on the rat dorsal raphe (an area rich in CCK-A receptors), III had Ke = 12.8 nM. The mixed CCK-A/CCK-B compound I [R = (S,S)-trans-2-methylcyclohexyl] showed antagonistic properties in both CCK-A and CCK-B models; thus it inhibited CCK-8S-evoked amylase secretion from pancreatic acinar cells and is anxiolytic in the light/dark box paradigm. It is concluded, therefore, that the CCK-B receptor (and not the CCK-A receptor) is responsible for the anxiolytic properties of these compds. in these test models.

IT 5854-52-4, 1-Adamantyl chloroformate 146516-55-4, 2-Chloro-1-adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(acylation by, of methyltryptophan derivs. in preparation of cholecystokinin receptor antagonists)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

RN 146516-55-4 CAPLUS

CN Carbonochloridic acid, 2-chlorotricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

L4 ANSWER 94 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:634550 CAPLUS

DOCUMENT NUMBER: 117:234550

TITLE: Amino acid analogs as CCK antagonists.

INVENTOR(S): Horwell, David Christopher; Aranda, Julian;

Augelli-Szafran, Corinne Elizabeth; Betche, Hans Jurgen; Holmes, Ann; Mullican, Michael David;

Pritchard, Martyn Clive; Richardson, Reginald Stewart;

Roth, Bruce David; et al.

PATENT ASSIGNEE(S): Warner-Lambert Co., USA SOURCE: PCT Int. Appl., 209 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.		KIND	DATE	APPLICATION NO.		DATE
					_	
WO 9204025		A1	19920319	WO 1991-US6181		19910829
W: AU	CA, FI,	JP, KR	, NO			
RW: AT	BE, CH,	DE, DK	, ES, FR,	GB, GR, IT, LU, NL, SE		
US 5331006		A	19940719	US 1991-726656		19910712
AU 9186538		A	19920330	AU 1991-86538		19910829
PRIORITY APPLN.	INFO.:			US 1990-576308	Α	19900831
				US 1991-726656	Α	19910712
				WO 1991-US6181	Α	19910829

OTHER SOURCE(S): MARPAT 117:234550

GI For diagram(s), see printed CA Issue.

The title compds. [I; R1 = cycloalkyl, polycycloalkyl hydrocarbyl, etc.; A AΒ = (CH2)nCO, SO2, S(O), NHCO, OC(O), etc.; n = 0-6; R2 = alkyl, CH:CH2, C.tplbond.CH, aminoalkyl, etc.; R3, R4 = H, R2, (CH2)m-B-D; m = 0-3; B = bond, OCO(CH2)n, O(CH2)n, NHCO(CH2)n, CONH(CH2)n, CO2(CH2)n, NHCOCH:CH, CO(CH2)n, etc.; D = (substituted) carboxy, hydroxymethyl, etc.; R9 = H, alkyl, etc.; R12, R13 = H; or R12R13 = bond, R13R4 = bond; Ar = mono- or polycyclic (substituted) carbo- or heteroarom. or carbo- or heterohydroarom. moiety; Ar2 = Ar, 1H-indol-yl, (CH2) nNHC(:NH) NHNO2, CH2CO2Me], useful for treatment of pain, panic disorder, drug dependence, as well as alcoholism, are prepared 2-Methyl-3-(1-naphthyl)alanine Me ester (preparation given) was N-acylated with 2-adamantyloxycarbonyl chloride, the product was hydrolyzed, and the product was amidated with phenethylamine to give I [R1 = 2-adamantyl, A = OC(O), R2 = Me, R3 = R4 = R9 = R12 = R13 = H, Ar = Ph, Ar2 = 1-naphthyl]. This showed a Ki, defined as IC50/(1+[L]Ka) (Ka being the equilibrium dissociation constant and [L] the concentration of

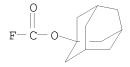
the radiolabel) of  $14~\mathrm{M}$ . I were also tested for their ability in treating gastric damage by aspirin, anxiolytic activity, and for treating drug addiction.

62087-82-5 ΤТ

> RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, in preparation of CCK antagonists)

62087-82-5 CAPLUS RN

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



AUTHOR(S):

ANSWER 95 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:489873 CAPLUS

DOCUMENT NUMBER: 117:89873

TITLE: Aerosol fluorination of 1-chloroadamantane,

> 2-chloroadamantane, and methyl 1-adamantylacetate: a novel synthetic approach to 1- and 2-substituted hydryl-, methyl-, and (difluoromethyl-F-adamantanes Adcock, James L.; Luo, Huimin; Zuberi, Sharique S.

CORPORATE SOURCE:

Dep. Chem., Univ. Tennessee, Knoxville, TN,

37996-1600, USA

SOURCE: Journal of Organic Chemistry (1992), 57(17), 4749-52

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 117:89873

1-Chloroperfluoroadamantane (I) and 2-chloroperfluoroadamantane (II) have been synthesized by aerosol direct fluorination of the corresponding hydrocarbons for the first time. The conversion of I and II to 1- and 2-methylperfluoroadamantane using MeLi and to 1- and 2hydrylperfluoroadamantane by two different methods is described. The aerosol direct fluorination of the Me ester of 1-adamantaneacetic acid gave the perfluorinated analog and the analogous acid fluoride, from which 1-difluoromethylperfluoroadamantane was synthesized in good yield. All compds. were characterized by 19F-NMR, FTIR, mass spectrometry and elemental anal.

ΙT 82829-41-2P

> RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and sequential hydrolysis and decarboxylation of)

RN 82829-41-2 CAPLUS

Tricyclo[3.3.1.13,7]decane-1-acetic acid,  $\alpha, \alpha, 2, 2, 3, 4, 4, 5, 6, 6,$ CN 7,8,8,9,9,10,10-heptadecafluoro-, trifluoromethyl ester (CA INDEX NAME)

L4 ANSWER 96 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:440368 CAPLUS

DOCUMENT NUMBER: 117:40368

TITLE: New water-soluble pilocarpine derivatives with

enhanced and sustained muscarinic activity

AUTHOR(S): Druzgala, Pascal; Winwood, David; Drewniak-Deyrup,

Malgorzata; Smith, Scott; Bodor, Nicholas; Kaminski,

James J.

CORPORATE SOURCE: Xenon Vision, Inc., Alachua, FL, 32615, USA

SOURCE: Pharmaceutical Research (1992), 9(3), 372-7

CODEN: PHREEB; ISSN: 0724-8741

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

The synthesis of an homologous series of new water-soluble derivs. of pilocarpine is described. The new compds., referred to as soft quaternary salts, are water soluble by virtue of a cationic ammonium head and their lipophilicity can be modulated by manipulating the size and the nature of the substituent in the inactive portion of the mol. The miotic activity of the compds. was evaluated after administration to normotensive New Zealand White rabbits. Changes in pupil size indicated a substantial cholinergic effect on the iridal sphincter musculature. The best candidate, I which has a 16-carbon side chain, was evaluated for reduction of the intraocular pressure in genetically glaucomatous beagles. I is superior to pilocarpine in both tests, with a potency 10-20-fold that of the parent compound and a longer duration of action. The new compds. are prodrug forms of pilocarpine which greatly enhance the corneal bioavailability of the parent compound

IT 71570-32-6P 142059-93-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

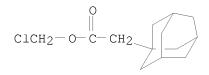
(preparation and reaction with pilocarpine)

RN 71570-32-6 CAPLUS

Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, chloromethyl ester (CA CN INDEX NAME)

142059-93-6 CAPLUS RN

CN Tricyclo[3.3.1.13,7]decane-1-acetic acid, chloromethyl ester (CA INDEX NAME)



ANSWER 97 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

1992:408489 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 117:8489

TITLE: Preparation of tetrapeptide cholecystokinin agonists INVENTOR(S): Shiosaki, Kazumi; Nadzan, Alex M.; Kopecka, Hana; Shue, Youe Kona; Holladay, Mark W.; Lin, Chun W.;

Nellans, Hugh N.

PATENT ASSIGNEE(S): Abbott Laboratories, USA SOURCE: PCT Int. Appl., 216 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE		APPLICATION NO.		DATE
				-	
WO 9119733	A1	19911126	WO 1991-US4458		19910620
W: CA, JP					
RW: AT, BE, CH,	DE, DK	, ES, FR, GI	B, GR, IT, LU, NL, SE		
US 5270302	A	19931214	US 1991-713010		19910617
PRIORITY APPLN. INFO.:			US 1990-541230	Α	19900620
			US 1991-713010	Α	19910614
			US 1988-287955	В2	19881221
			WO 1989-US5673	Α	19891218
OTHER SOURCE(S):	MARPAT	117:8489			

GΙ

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

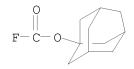
XYZQ [X = R3(CH2)nCR1R2CR4R5, (indole ring substituted) Q1; R1 = H, OH, AB halo, alkyl, alkoxy, haloalkyl, alkanoyl, alkoxycarbonyl, aminocarbonyl, cyano, (acyl)amino, etc; R2 = H, alkyl; R3 = bicyclic carbocyclyl, heterocyclyl; R4, R5 = H; or R4R5 = O, n = 1,2; Y = R10HN(CH2)n CH(NR9)CR11R12, R13NCOA(CH2)4CH(NR9)CR11R12; R9 = H, alky1; R10 =C(:G)NHR13, CO(CH2)pR14, etc.; G = O, S, p = O, 1, 2; R13 = (cyclo)alkyl, alkenyl, mono- or bicyclic heterocyclyl, etc.; R14 = cycloalkyl, mono- or bicyclic heterocyclyl, (substituted) aryl; R11, R12 = H; or R11R12 = O; A = O, CH2; Z = R17(CH2)rCH(NR16)U; U = CO, CH2, CH2CO; r = 1 when U = CO, CH2; r = 0 when U = CH2CO; R16 = H, alkyl; R17 (prodrug ester of) CO2H; Q = NR23CR24R26 (CH2) sR25; s = 1, 2; R23 = H, alky1; R24 = H, Me; or R23R24 = H(CH2)3; R25 = aryl, mono- or bicyclic heterocyclyl, cycloalkyl; R26 = (substituted) carbamoyl] were prepared Thus, title peptide I, prepared by solution phase methods, inhibited feeding in rats with ED50 = 1.3 nmole/kg i.p.

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, in preparation of cholecystokinin agonist)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 98 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:40642 CAPLUS

DOCUMENT NUMBER: 116:40642

TITLE: Multiple pathways in the solvolysis of 1-adamantyl

fluoroformate

AUTHOR(S): Kevill, Dennis N.; Kyong, Jin Burm

CORPORATE SOURCE: Dep. Chem., North. Illinois Univ., DeKalb, IL, 60115,

USA

SOURCE: Journal of Organic Chemistry (1992), 57(1), 258-65

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal LANGUAGE: English

AB Reactions of 1-adamantyl fluoroformate in hydroxylic solvents have been studied. In solvents of high ionizing power and relatively low nucleophilicity, such as 2,2,2-trifluoroethanol-water mixts., the reactions parallel those of 1-adamantyl chloroformate, and only solvolysis-decomposition reaction is observed However, differing from the reactions of the corresponding chloroformate, in other solvents appreciable amts. of attack at acyl carbonyl occur, more than 90% in ≥80% aqueous ethanol. Entropies of activation for attack at acyl carbon are considerably more neg. than for solvolysis-decomposition For the solvolysis-decomposition, a Grunwald-Winstein m value of 0.70 is observed The kCl/kF ratios for solvolysis-decomposition are in the range of 104-105, suggesting appreciable C-X bond breaking in the transition state of the rate-determining step and arguing against rate-determining formation of a 1-Ad+(OCOX)-

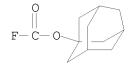
ΙT

ion pair. Attack at acyl carbon is analyzed in terms of the two-term Grunwald-Winstein equation, and sensitivities toward changes in nucleophilicity and ionizing power are identical to those for solvolyses of n-octyl fluoroformate, which are believed to proceed via a tetrahedral intermediate. For each of the major pathways, selectivities toward the components of binary hydroxylic solvents are reported and discussed. 62087-82-5

RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (solvolysis of, kinetics and mechanism of)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 99 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:205140 CAPLUS

DOCUMENT NUMBER: 114:205140

TITLE: Fully synthetic immunogens. Part III. Synthesis of

hinge-peptide/gastrin conjugates and their

immunological properties

AUTHOR(S): Wuensch, E.; Moroder, L.; Huebener, G.; Musiol, H. J.;

Von Gruenigen, R.; Goehring, W.; Scharf, R.;

Schneider, C. H.

CORPORATE SOURCE: Dep. Peptide Chem., Max Planck Inst. Biochem.,

Martinsried, Germany

SOURCE: International Journal of Peptide & Protein Research

(1991), 37(2), 90-102

CODEN: IJPPC3; ISSN: 0367-8377

DOCUMENT TYPE: Journal LANGUAGE: English

As the core mol. for multiple attachment of antigenic peptides the human IgG1 hinge fragment 225-223/225'-232' was selected. Two types of conjugates of this double-chain biscystinyl hinge-peptide were prepared (i) by linking its C-termini to [NIe15]-human-little-gastrin-[2-17] and (ii) by elongating the resulting hinge-peptide/[NIe15]-little-gastrin-[2-17] conjugate at the two N-termini with the human big-gastrin sequence 1-14 to produce the big-gastrin-[1-14]/hinge-peptide/little-gastrin-[2-17] conjugate. For the synthesis of these peptide structures both the route via the preformed double-chain biscystinyl peptide and the route via suitably protected monomeric bis-cysteinyl peptides were used. For the latter approach advantage was taken of the previous observation about the preferred oxidation of the biscysteinyl hinge-peptide 225-232 to the dimer in parallel alignment. Both synthetic routes led to identical products. Immunization expts. in guinea pigs with the synthetic hybrids led to surprisingly strong immune responses with anti-little-gastrin antibody titers comparable to those induced by the iso-1-cytochrome c/little-gastrin-[2-17] conjugate as carrier-hapten system. The 2 gastrin constructs are fully competent immunogens. Addnl., the gastrin receptor-like specificity of the antibodies indicates that both the

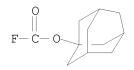
synthetic hybrids and the cytochrome c conjugate allow for expression of a little-gastrin-specific conformational epitope similar to the bioactive structure of this hormone. The usefulness of such synthetic hybrids is further confirmed by the observation that the bivalent immunogen, containing both the little-gastrin 2-17 and the big-gastrin 1-14 sequence, is capable of inducing an immune response against both antigenic sequences, although with different efficiency.

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with peptide derivative)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 100 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:102854 CAPLUS

DOCUMENT NUMBER: 114:102854

TITLE: Preparation of acyldipeptidecarboxaldehydes as

proteinase inhibitors

INVENTOR(S): Higuchi, Naoki; Saitoh, Masayuki; Shibata, Hiroshi

PATENT ASSIGNEE(S): Suntory, Ltd., Japan SOURCE: Eur. Pat. Appl., 33 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 393457 EP 393457	A1 B1	19901024 19940706	EP 1990-106738	19900409
R: AT, BE, CH,	DE, DK	, ES, FR, GB	, GR, IT, LI, LU, NL	, SE
JP 02268145	A	19901101	JP 1989-89904	19890410
JP 2701932	B2	19980121		
US 5081284	A	19920114	US 1989-373811	19890629
ES 2058653	Т3	19941101	ES 1990-106738	19900409
US 5510531	A	19960423	US 1994-318557	19941005
PRIORITY APPLN. INFO.:			JP 1989-89904	A 19890410
			US 1989-373811	A2 19890629
			US 1991-743135	B1 19910809
			US 1993-58669	B1 19930510

OTHER SOURCE(S): CASREACT 114:102854; MARPAT 114:102854

AB R1R2NCHR3CONHCHR4CHO [I; R1 = acyl, (cyclic) alkoxycarbonyl, (substituted) PhCH2O2C, Cl3CCH2O2C, Me3SiCH2CH2O2C, tosyl, 2-O2NC6H4S, Ph2P(S), Ph3C, PhCOCH:CMe; R2 = H; R1R2 = phthaloyl; R3 Bu, Me2CHCH2, Me2CH; R4 = Bu],

were prepared Thus, Me(CH2)6COCl and 1N NaOH were added to a mixture of H-Leu-OH and 1N NaOH with ice cooling and the mixture was stirred 8 h at room temperature to give Me(CH2)6CO-Leu-OH. The latter was coupled with

norleucine Me ester-HCl in DMF using (EtO) 2P(0) CN/Et3N at room temperature; the product was reduced with NaBH4 in Me3COH/MeOH followed by reoxidn. with SO3/pyridine/Et3N/Me2SO to give Me(CH2)6CONHCH(CH2CHMe2)CONHCH[(CH2)3Me]CH O. I inhibited calpain II with IC50 of 1.2-1.3 + 10-7M, and inhibited cathepsin B with IC50 of 7.9 + 10-8 - 9.9 + 10-5M.

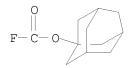
IT 62087-82-5, Adamantyloxycarbonyl fluoride

RL: RCT (Reactant); RACT (Reactant or reagent)

(acylation by, of leucine, in preparation of proteinase inhibitor)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 101 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:82478 CAPLUS

DOCUMENT NUMBER: 114:82478

TITLE: Amino acids and peptides. 76. Lavendomycin: total

synthesis and assignment of configuration

AUTHOR(S): Schmidt, Ulrich; Mundinger, Klaus; Mangold, Rainer;

Lieberknecht, Albrecht

CORPORATE SOURCE: Inst. Org. Chem. Isotopenforsch., Univ. Stuttgart,

Stuttgart, D-7000/80, Germany

SOURCE: Journal of the Chemical Society, Chemical

Communications (1990), (18), 1216-19

CODEN: JCCCAT; ISSN: 0022-4936

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 114:82478

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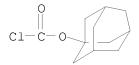
AB (-)-Lavendomycin (I), a highly potent hexapeptide antibiotic with very low toxicity, was prepared by solution methods.

IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent)
 (acylation by, of arginine derivative)

5854-52-4 CAPLUS RN

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



ANSWER 102 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:611518 CAPLUS

DOCUMENT NUMBER: 113:211518

TITLE: New reagents for exhaustive alkoxycarbonylation of

amides and urethanes. Di-1-adamantyl di- and

tricarbonate

AUTHOR(S): Koennecke, Andreas; Grehn, Leif; Ragnarsson, Ulf

CORPORATE SOURCE: Biomed. Cent., Univ. Uppsala, Uppsala, S-751 23, Swed.

Tetrahedron Letters (1990), 31(19), 2697-700 SOURCE:

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 113:211518

Di-1-adamantyl di- and tricarbonate and Me3CO(CO2)3CMe3 are useful reagents for the DMAP-catalyzed alkoxycarbonylation of amides and

urethanes. E.g., treatment of AcNHPh with di-1-adamantyl dicarbonate and

DMAP gave 90% AcNPhCO2R (R = 1-adamantyl).

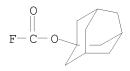
62087-82-5 ΤТ

RL: RCT (Reactant); RACT (Reactant or reagent)

(alkoxycarbonylation with, of acetanilide)

62087-82-5 CAPLUS RN

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



ANSWER 103 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

1990:477752 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 113:77752

TITLE: Radiochemical alkylation of adamantane by

perfluorovinyl ethers

Machula, A. A.; Podkhalyuzin, A. T.; Shapet'ko, N. N. AUTHOR(S): CORPORATE SOURCE: Nauchno-Issled. Fiz.-Khim. Inst. im. Karpova, Moscow,

USSR

SOURCE: Khimiya Vysokikh Energii (1990), 24(2), 117-21

CODEN: KHVKAO; ISSN: 0023-1193

DOCUMENT TYPE: Journal LANGUAGE: Russian

Title reaction with CF2:CFR [I; R = OC3F7-n, O(CF2)3OCF3] and a 60Co

source in EtOAc at 308-373 K gave 1- and 1,3-dialkylation products via a complex mechanism. A kinetic anal. yielded activation energies of .apprx.16-17 kJ/mol. I [R = OCF3, OCF2CF(CF3)OC3F7-n] were of comparable reactivity to the above, but that of I [R = CF3, O[CF2CF(CF3)O]2C3F7-n, OCF2CF(CF3)OCF2CF2SO2F, F, O(CF2)5CO2Me, O(CF2)3OCF(CF3)CN] decreased in the stated order of R.

IT 128428-29-5P 128428-30-8P 128428-31-9P 128428-32-0P

RN 128428-29-5 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[1,1,2-trifluoro-2-(heptafluoropropoxy)ethyl]- (9CI) (CA INDEX NAME)

RN 128428-30-8 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1,3-bis[1,1,2-trifluoro-2-(heptafluoropropoxy)ethyl]- (9CI) (CA INDEX NAME)

RN 128428-31-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[1,1,2-trifluoro-2-[1,1,2,2,3,3-hexafluoro-3-(trifluoromethoxy)propoxy]ethyl]- (CA INDEX NAME)

RN 128428-32-0 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1,3-bis[1,1,2-trifluoro-2-[1,1,2,2,3,3-hexafluoro-3-(trifluoromethoxy)propoxy]ethyl]- (CA INDEX NAME)

L4 ANSWER 104 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:439852 CAPLUS

DOCUMENT NUMBER: 113:39852

TITLE: Solvolysis-decomposition of 1-adamantyl chloroformate:

evidence for ion pair return in 1-adamantyl chloride

solvolysis

AUTHOR(S): Kevill, Dennis N.; Kyong, Jin Burm; Weitl, Frederick

L.

CORPORATE SOURCE: Dep. Chem., North. Illinois Univ., DeKalb, IL, 60115,

USA

SOURCE: Journal of Organic Chemistry (1990), 55(14), 4304-11

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 113:39852

AB In hydroxylic solvents, 1-adamantyl chloroformate reacts with loss of CO2 and formation of both solvolysis and decomposition products. The rates of both processes are appreciably sensitive to solvent ionizing power, with the solvolysis slightly more so. The influence of anionic additives is discussed. For mixts. of hydroxylic solvents, the selectivities for the formation of solvolysis products are very similar to those observed in conventional solvolyses of 1-adamantyl derivs. It is suggested that 1-Ad+C1- ion pair intermediates are formed, and the observation of collapse requires that an identical collapse, corresponding to internal return, also occurs in 1-adamantyl chloride solvolysis. A comparison with solvolyses of similar compds. suggests that the initial ionization is not to 1-Ad+ (OCOC1)- and that the 1-Ad+C1- ion pair is formed either in a concerted process or via a very unstable (1-AdOCO)+C1- ion pair.

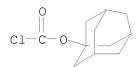
IT 5854-52-4, 1-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(solvolysis-decomposition of, in hydroxylic solvents, mechanism and kinetics of)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 105 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:157506 CAPLUS

DOCUMENT NUMBER: 112:157506

TITLE: Correlation of the rates of decomposition and

solvolysis-decomposition of 1-adamantyl chloroformate

with solvent ET(30) values

AUTHOR(S): Kevill, Dennis N.; Weitl, Frederick L.

CORPORATE SOURCE: Dep. Chem., North. Illinois Univ., DeKalb, IL, 60115,

USA

SOURCE: Journal of Chemical Research, Synopses (1989), (10),

318 - 19

CODEN: JRPSDC; ISSN: 0308-2342

DOCUMENT TYPE: Journal LANGUAGE: English

AB The title correlation was established on dioxane (decomposition) and MeCN

 $(\verb"solvolysis-decomposition").\\$ 

IT 5854-52-4, 1-Adamantyl chloroformate

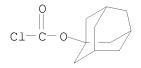
RL: PRP (Properties)

(decomposition and solvolysis of, solvent Dimroth-Reichardt values in

relation to kinetics of)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 106 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:157322 CAPLUS

DOCUMENT NUMBER: 112:157322

TITLE: A simple conversion of 1-chloroethyl carbonates to

fluoroformates: value in the preparation of tertiary

alkyl fluoroformates

AUTHOR(S): Dang Vu Anh; Olofson, Roy A.; Wolf, Patrick R.;

Piteau, Marc D.; Senet, Jean Pierre G.

CORPORATE SOURCE: Dep. Chem., Pennsylvania State Univ., University Park,

PA, 16802, USA

SOURCE: Journal of Organic Chemistry (1990), 55(6), 1847-51

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 112:157322

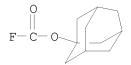
AB When the economical and easily available 1-chloroalkyl carbonates RCHClOCO2R1 (R = Me, CCl3; R1 = alkyl aralkyl, Ph) are heated neat or in solution with KF in the presence of an 18-crown-6 catalyst, they fragment to aldehydes RCHO and fluoroformates FCO2R1. If the system is evacuated during reaction and either or both products are removed as formed then the process is driven to completion and fluoroformates are isolated in good yield. The new methodol., which exemplifies an unusual conversion of an ester to an acid halide, is especially valuable in the synthesis of important tertiary alkyl and benzyl fluoroformates FCO2R1 (I, R1 = CMe3, CMe2Et, 1-adamantyl, PhCH2) from MeCHClOCO2R1. I (R1 = CMe3) (Boc-F) previously has been recommended as a superior reagent for the preparation of Boc-amino

acids, but earlier routes to this reagent have been expensive and impractical. When R = CC13, the reaction proceeds cleanly without the 18-crown-6 catalyst. This latter variation is most useful on a small industrial scale.

IT 62087-82-5P

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 107 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:139656 CAPLUS

DOCUMENT NUMBER: 112:139656

TITLE: Advantages of fluoroformates as carboalkoxylating

reagents for polar reactants

AUTHOR(S): Dang Vu Anh; Olofson, Roy A.

CORPORATE SOURCE: Dep. Chem., Pennsylvania State Univ., University Park,

PA, 16802, USA

SOURCE: Journal of Organic Chemistry (1990), 55(6), 1851-4

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 112:139656

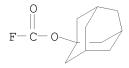
AB While chloroformates react explosively with DMSO and exothermically with DMF and other tertiary amides, it was found that fluoroformates are stable in these solvents below 100°. Several important classes of hydroxyl- and amine-containing organic compds. are insol. in aprotic solvents less polar than DMSO and DMF and thus cannot be carboalkoxylated in inert media with chloroformates. In this paper, such compds. were easily and efficiently carboalkoxylated with fluoroformates in DMSO or DMF (N-methylpyrrolidinone). Examples include the per-carboalkoxylation of glucose, salicin, adonitol, sucrose, and thymidine in 77-89% yield. KF, or preferably Et3N, is used as the proton scavenger. While cellulose is only partly carboalkoxylated under these conditions, essentially all of the OH functions in polyvinyl alc. of average MW 12000 are converted to carbethoxy groups.

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent) (alkoxycarbonylation by, of glucose)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 108 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:98001 CAPLUS

DOCUMENT NUMBER: 112:98001

TITLE: Simple one-step preparations of vinylic carbonates

from aldehydes

AUTHOR(S): Olofson, R. A.; Dang Vu Anh; Morrison, David S.; De

Cusati, Paul F.

CORPORATE SOURCE: Dep. Chem., Pennsylvania State Univ., University Park,

PA, 16802, USA

SOURCE: Journal of Organic Chemistry (1990), 55(1), 1-3

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 112:98001

Treatment of enolizable aldehydes RCHR1CHR (I, R, R1 = H Me) with fluoroformates FCO2R2 (R2 = CH2CMe, Et, etc.) and KF in DMSO at 55-100° for 8-24 h affords 1-alkenyl carbonates RCR1:CHO2COR2 (II) in 71-92% yield. In this process, naked fluoride abstrs. a proton from I to generate an enolate, which rapidly is acylated at oxygen by FCO2R1 to give II. The HF thus generated is scavenged by more KF and nicely eliminated as KHF2. The reaction also is unusual because complications from the generally dominant acceptor properties of aldehydes are not observed Simple ketones react very slowly if at all in this reaction. However, the acidic phenylacetone reacts almost as fast as acetaldehyde, an indication that aldehydes may be more acidic than previously recognized. transformation  $I \rightarrow II$  also can be performed in acetonitrile if 18-crown-6 is included as a catalyst. In this system, chloroformates may be substituted for fluoroformates if an extra equivalent of KF is included in the reaction medium. The yields are as good and the conditions are milder, but 1-fluoroalkyl carbonates can be significant side products (especially in reactions done without solvent).

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent) (acylation by, of aldehyde enolate, vinylic carbonates by)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

F-C-0

L4 ANSWER 109 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1989:477858 CAPLUS

DOCUMENT NUMBER: 111:77858

TITLE: 1,2,5,6-Tetrahydropyridine-3-carboxaldehyde oxime

derivatives, process for their preparation, and

cholinomimetic formulations containing them

INVENTOR(S): Galliani, Giulio; Barzaghi, Fernando; Bonetti, Carla;

Toja, Emilio

PATENT ASSIGNEE(S): Roussel-UCLAF, Fr. SOURCE: Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 308283	A1	19890322	EP 1988-402128	19880819
EP 308283		19920122		
		• • • • •	R, IT, LI, LU, NL, SE	
NO 8803521	A	19890222	NO 1988-3521	19880808
NO 174504	В			
NO 174504	С	19940518		
DK 8804573		19890222	DK 1988-4573	19880816
JP 01068356	A	19890314	JP 1988-203962	19880818
JP 07107048	В	19951115		
ZA 8806131	A	19891025	ZA 1988-6131	19880818
FI 8803869		19890222	FI 1988-3869	19880819
FI 90070	В	19930915		
FI 90070	С	19931227		
AU 8821100	A	19890223	AU 1988-21100	19880819
AU 608643	В2	19910411		
HU 49328	A2	19890928	HU 1988-4414	19880819
HU 201012	В	19900928		
SU 1681723	A3	19910930	SU 1988-4356622	19880819
AT 71938	T	19920215	AT 1988-402128	19880819
ES 2038776	Т3	19930801	ES 1988-402128	19880819
CA 1340987	С	20000509	CA 1988-575166	19880819
US 4921868	A	19900501	US 1988-234632	19880822
US 5231107	A	19930727	US 1992-863466	19920401
PRIORITY APPLN. INFO.:			IT 1987-21687 A	. 19870821
				. 19880819
			US 1988-234632 A	.3 19880822
			US 1990-501889 B	2 19900330
			US 1990-560849 B	1 19900731
OTHER COHROLL(C).	ייי עכו עזע	111.77050		

OTHER SOURCE(S): MARPAT 111:77858

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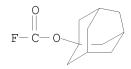
The title compds. I [R = (substituted) (un)saturated alkyl, (substituted) aryl, aralkyl; R1 = H, (un)saturated alkyl], useful as cholinomimetics, were prepared A mixture of 1,2,5,6-tetrahydropyridine-3-carboxaldehyde O-Me oxime, Et3N, and ClCO2Et in benzene was stirred at room temperature for 1 h to give 1-ethoxycarbonyl-1,2,5,6-tetrahydropyridine-3-carboxaldehyde O-Me oxime (II). In an in vitro test using guinea pig ileum for cholinergic activity, II exhibited a pD2 of 4.47, vs. 6.48 for arecoline. Capsules containing 1-(p-chlorophenyloxycarbonyl)-1,2,5,6-tetrahydropyridine-3-carboxaldehyde O-Me oxime 60 mg and excipient (lactose, starch, Mg stearate, talc) 300 mg were prepared

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, in preparation of cholinomimetic)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 110 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:115485 CAPLUS

DOCUMENT NUMBER: 110:115485

TITLE: Preparation of 1-alkenyl carbonates for use in polymer

formation

INVENTOR(S): Vu Anh Dang; Olofson, Roy; Morrison, David; Decusati,

Paul

PATENT ASSIGNEE(S): Societe Nationale des Poudres et Explosifs, Fr.

SOURCE: Fr. Demande, 29 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	FR 2603886	A1	19880318	FR 1986-12745	19860912
	FR 2603886	B1	19881216		
PΙ	RIORITY APPLN. INFO.	:		FR 1986-12745	19860912
07	THER SOURCE(S):	CASRE <i>I</i>	ACT 110:1154	185; MARPAT 110:115485	
ΑI				2 = H, halo, alkyl, etc.	
	ring-completing	group; R3	= H, alkyl,	aryl, etc.; $R4 = aliph$	natic group, etc.;
	n = 1-2) are pre	pared from	n fluoroform	nates (FCO2)nR4 and cark	oonyl compds.
	R1CHR2COR3 in th	e presence	e of KF, CsF	F, KHF2, or KSO2F, optic	onally
	activated by cry	ptates or	cyclic poly	vesters, at 20-100°. St	irring

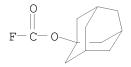
activated by cryptates or cyclic polyesters, at 20-100°. Stirring AcH 4.73, FCO2Et 1.95, KF 5.00, 18-crown-6 1.00, and PhNO2 4.30 g 5 h at 55° gave 1.95 g H2C:CHOCO2Et.

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent) (esterification of, with carbonyl compound)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 111 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:7447 CAPLUS

DOCUMENT NUMBER: 110:7447

TITLE: Kinetics and mechanism of monomolecular heterolysis of

cage compounds. V. Ionization-fragmentation process in

the decomposition of 1-adamantyl chloroformate

AUTHOR(S): Ponomareva, E. A.; Yavorskaya, I. F.; Dvorko, G. F.

CORPORATE SOURCE: Kiev. Politekh. Inst., Kiev, USSR

SOURCE: Zhurnal Organicheskoi Khimii (1988), 24(3), 535-49

CODEN: ZORKAE; ISSN: 0514-7492

DOCUMENT TYPE: Journal LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 110:7447

AB The decomposition of 1-adamantyl chloroformate was examined in the presence of

triphenylverdazyls in MeCN, PhNO2, benzene, Me2CHOH, and Me3COH. In

PhNO2, small amts. of H2O increased the rate, and addition of

tetraethylammonium halides decreased it. In the alc. solvents and in PhNO2 in the presence of tetraethylammonium halides, the rate depended on the substituent in the verdazyl. The rate increased linearly with solvent dielec. constant In the 1st step a contact ion pair is formed, which in the rate-determining step either fragments to 1-adamantyl chloride (I) or is transformed to a solvent-separated ion pair. The latter reacts with the

verdazyl or fragments to I.

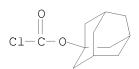
IT 5854-52-4, 1-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(decomposition of, in presence of triarylvertazyls, kinetics of)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 112 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:167919 CAPLUS

DOCUMENT NUMBER: 108:167919

TITLE: The interaction of copper(II) ions with the

thyrotropin-releasing hormone synthesized by Adpoc

protection

AUTHOR(S): Maskos, Karol; Kalbacher, Hubert; Stock, Wieland;

Voelter, Wolfgang

CORPORATE SOURCE: Physiol.-Chem. Inst., Univ. Tuebingen, Tuebingen,

D-7400, Fed. Rep. Ger.

SOURCE: Zeitschrift fuer Naturforschung, B: Chemical Sciences

(1987), 42(4), 459-66

CODEN: ZNBSEN; ISSN: 0932-0776

DOCUMENT TYPE: Journal LANGUAGE: English

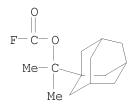
The copper(II) complexes of the TSH-releasing hormone (L-pyroglutamyl-Lhistidyl-L-prolinamide, TRH) in aqueous 3M LiCl solns. were investigated as a function of pH by CD, absorption, ESR spectroscopy. A simple ML (1N) complex of copper (II)-TRH is formed over the pH range 4.0-4.5, while 2N and 3N complexes are present in solns. of pH of 4.4-6.0. From pH 6.1 to 9.8, a ML2 (4N) complex is formed and this species is the only complex found over the pH range 6.5-8.5. At pH values above 9.0, a 3N species is formed in addition to a 2N complex which is present in the solns. of pH 11.3. These observations are controversial with respect to former reports. TRH was synthesized using the fully Adpoc (adamantylisopropyloxycarbonyl) protected histidine. The advantages of the Adpoc group (cleavable under extreme mild acidolytic conditions) become obvious.

74654-74-3 ΙT

> RL: RCT (Reactant); RACT (Reactant or reagent) (protection by, of histidine)

74654-74-3 CAPLUS

Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester CN (CA INDEX NAME)



ANSWER 113 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:132279 CAPLUS

DOCUMENT NUMBER: 108:132279

TITLE: Synthesis of the trypsin fragment 10-25/75-88 of mouse

nerve growth factor. II. The unsymmetrical double

chain cystine peptide

AUTHOR(S): Romani, S.; Moroder, L.; Goehring, W.; Scharf, R.;

Wuensch, E.; Barde, Y. A.; Thoenen, H.

Pept. Chem. Dep., Max Planck Inst. Biochem., CORPORATE SOURCE:

Martinsried, D-8033, Fed. Rep. Ger.

International Journal of Peptide & Protein Research SOURCE:

(1987), 29(1), 107-17 CODEN: IJPPC3; ISSN: 0367-8377

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 108:132279

GΙ

H-Gly-Glu-Phe-Ser-Val-Cys-Asp-Ser-Val-R<sup>1</sup> H-His-Trp-Asn-Ser-Tyr-Cys-Thr-Thr-R<sup>2</sup>

I, R1=Ser-Val-Trp-Val-Gly-Asp-Lys-OH R2=His-Thr-Phe-Val-Lys-OH

Boc-Gly-Glu-Phe-Ser-Val-Cys-Asp-Ser-OH
OCMe3 CMe3 CMe3
OCMe3

Adoc-His-Trp-Asn-Ser-Tyr-Cys-ThrAdoc CMe3 CMe3

Thr-Thr-His-Thr-Phe-Val-Lys-OCMe3
R CMe3 Boc
CMe3
CMe3

AB The title peptide I was prepared by coupling cystine peptide II (Boc = Me3CO2C, Adoc = adamantyloxycarbonyl, R = Adoc) (III) with H-Val-Ser(CMe3)-Val-Trp-Val-Gly-Asp(OCMe3)-Lys(Boc)-OCMe3 (IV) by the mixed anhydride method and deblocking the resulting protected peptide by acidolysis. Boc-Gly-Glu(OCMe3)-Phe-Ser(CMe3)-Val-Cys(R1)-Asp(OCMe3)-Ser(CMe3)-OH (V) (R1 = SCMe3) (VI) was cleaved with Bu3P to give V (R1 = H), which was treated with BocN:NBoc to give V [R1 = N(Boc):NBoc]. The latter underwent disulfide coupling with Adoc-His(Adoc)-Trp-Asn-Ser(CMe3)-Tyr(CMe3)-Cys-Thr(CMe3)-Thr(CMe3)-His-Thr(CMe3)-Phe-Val-Lys(Boc)-OCMe3 to give II (R = H), which was treated with Adoc-F to give III. IV and VI were prepared by solution methods. I was inactive in all bioassays; consequently, this portion of the NGF mol. does not represent or contain a lower mol. weight form of the neurotrophic factor.

ΤT

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent) (Nim-adamantyloxycarbonylation by, of histidine-containing peptide)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

F-C-0

L4 ANSWER 114 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:111768 CAPLUS

DOCUMENT NUMBER: 108:111768

TITLE: Efficient synthesis of tert-alkoxyethynes

AUTHOR(S): Pericas, Miquel A.; Serratosa, Felix; Valenti, Eduard CORPORATE SOURCE: Dep. Quim. Org., Univ. Barcelona, Barcelona, 08028,

Spain

SOURCE: Tetrahedron (1987), 43(10), 2311-16

CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 108:111768

AB Bromoalkoxylation of EtOCH: CH2 with Br and ROH (R = Me3C, 1-adamantyl) gave BrCH2CH(OR)OEt (I). Chlorodeethoxylation of I with PC15, followed by dehydrochlorination, gave (Z)-ROCH: CHBr (II) in 72-76% yields. Dehydrobromination of II with NaNH2 gave ROC.tplbond.CH in 59-75% yields.

Dehydrobromination of II (R = Me3C) with LiN(CHMe2)2, followed by alkylation with BuBr, gave Me3COC.tplbond.CBu in 47-55% yield.

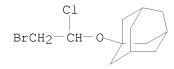
IT 113279-38-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and dehydrochlorination of, with triethylamine)

RN 113279-38-2 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-(2-bromo-1-chloroethoxy)- (CA INDEX NAME)



L4 ANSWER 115 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:637255 CAPLUS

DOCUMENT NUMBER: 107:237255

TITLE: Synthesis of substrates of cyclic AMP-dependent

protein kinase and use of their protected precursors

for the convenient preparation of phosphoserine

peptides

AUTHOR(S): Grehn, Leif; Fransson, Bengt; Ragnarsson, Ulf CORPORATE SOURCE: Inst. Biochem., Univ. Uppsala, Uppsala, S-751 23,

Swed.

SOURCE: Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1972-1999)

(1987), (3), 529-35

CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal LANGUAGE: English

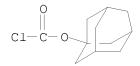
OTHER SOURCE(S): CASREACT 107:237255

AB The synthesis of protected hexa- to nona-peptide precursors of substrates of cAMP-dependent protein kinase, based on a partial amino acid sequence from rat liver pyruvate kinase, as well as of related phosphoserine peptides has been explored. A convenient scheme has been developed which furnishes both N-terminally elongated peptides of variable lengths and intermediates suitable for chemical phosphorylation. The use of adamantyloxycarbonyl as a protecting group for the two important guanidine functions involved, gave rise to the highly lipophilic intermediates HF or CF3CO2H afforded the pure substrate peptides R-Arg-Arg-Ala-Ser-Val-Ala-OH

(R = H, H-Val-Leu, H-Gly-Val-Leu, isovalerylleucyl, Ac-Val-Leu) in high overall yield. All of the free peptides obtained could be phosphorylated by cAMP-dependent protein kinase at a significant rate. The chemical synthesis of two phosphoserine peptides and their purification by preparative reversed-phase ion-pair chromatog. are also reported.

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 116 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:60807 CAPLUS

DOCUMENT NUMBER: 106:60807

TITLE: Chemistry and in vivo activities of new oral prodrugs

of a potent aminothiazoloximinocephalosporin

AUTHOR(S): Curran, W. V.; Kuck, N. A.; Testa, R. T.; Lee, V. J.

CORPORATE SOURCE: Med. Res. Div., Lederle Lab., Pearl River, NY, USA SOURCE: Recent Adv. Chemother., Proc. Int. Congr. Chemother., 14th (1985), Issue Antimicrobial Sect. 2, 1135-6.

Editor(s): Ishiqami, Joji. Univ. Tokyo Press: Tokyo,

Japan.

CODEN: 55GNAX Conference

DOCUMENT TYPE: Conference LANGUAGE: English

GΙ

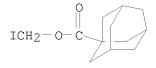
AB The prodrug esters I (R = H, Me; R1 = OEt, Ph, Me, adamentylcarbonylmethyl, etc.) were prepared and tested for antibacterial activity against Klebsiella pneumoniae and Escherichia coli infections in mice. The prodrug esters were well absorbed after oral administration and gave good results in combating infections in mice.

IT 106518-37-0

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with cephalosporin derivative)

RN 106518-37-0 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, iodomethyl ester (CA INDEX NAME)



L4 ANSWER 117 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:4532 CAPLUS

DOCUMENT NUMBER: 106:4532

TITLE: Fluoroformates

INVENTOR(S): Piteau, Marc; Senet, Jean Pierre; Wolf, Patrick; Vu

Anh Dang; Olofson, Roy A.

PATENT ASSIGNEE(S): Societe Nationale des Poudres et Explosifs, Fr.

SOURCE: Fr. Demande, 19 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2571049	A1	19860404	FR 1984-14971	19840928
FR 2571049	В1	19871023		
PRIORITY APPLN. INFO.:			FR 1984-14971	19840928
OTHER SOURCE(S):	CASREA	CT 106:4532;	MARPAT 106:4532	

AB R102CF [R1 = (un)substituted, (un)saturated aliphatic, cycloaliph., polycyclyl] were prepared by fluoride treatment of carbonates at 20-120°. Thus, Me3COH was condensed with C1CO2CHC1CC13 to give Me3CO2COCHC1CC13. This was fluorinated with KF.18-crown-6 complex at 30-35° to give 79% (Me3C)O2CF.

IT 62087-82-5P

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

F-C-0

L4 ANSWER 118 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:571854 CAPLUS

DOCUMENT NUMBER: 105:171854

ORIGINAL REFERENCE NO.: 105:27681a,27684a TITLE: Fluoroformate esters

INVENTOR(S): Piteau, Marc; Senet, Jean Pierre; Wolf, Patrick; Dang,

Vu Anh; Olofson, Roy Arne

PATENT ASSIGNEE(S): Societe Nationale des Poudres et Explosifs, Fr.

SOURCE: Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PAT	CENT NO.			KINI	)	DATE	A	PPL:	ICATION NO.	•		DATE
		176412 176412			A1 B1	-	19860402 19881117	E:	P 1	985-401723			19850905
		R: BE,	CH,	DE,	FR,	GB,	, IT, LI,	NL,	SE				
	US	4612143			А		19860916	U	S 1	984-651661			19840917
	IL	76249			А		19881230	I	L 19	985-76249			19850829
	JΡ	61112048	3		А		19860530	J.	P 1	985-201963			19850913
	JΡ	06043368	3		В		19940608						
	HU	38602			A2		19860630	H	U 1	985-3483			19850916
	HU	199101			В		19900129						
PRIOF	RITY	APPLN.	INFO	.:				U	S 1	984-651661		Α	19840917

OTHER SOURCE(S): CASREACT 105:171854; MARPAT 105:171854

The reaction of R2CHClOC(0)OR1 (R1 = saturated or unsatd. hydrocarbyl; R2 = H, alkyl, cycloalkyl, etc.) with alkali, alkaline earth, ammonium, and quaternary ammonium fluorides gave FCO2R1. Thus, C13CCHC1OC(O)OCMe3 was treated with KF and 18-crown-6 in MeO(CH2CH2O)2Me to give FCO2CMe3.

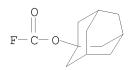
62087-82-5P ΤТ

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 62087-82-5 CAPLUS

Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME) CN



ANSWER 119 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:406824 CAPLUS

DOCUMENT NUMBER: 105:6824

ORIGINAL REFERENCE NO.: 105:1277a,1280a

TITLE: Antihypertensive peptides containing ethylenediamine

INVENTOR(S): Rasetti, Vittorio; Buhlmayer, Peter; Fuhrer, Walter;

Andreatta, Rudolf Heinrich; Caselli, Anthony; Renner,

Ulrich

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz. SOURCE:

Eur. Pat. Appl., 147 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	PATENT NO.			KIND DATE		TE APPL		APPLICATION NO.			DATE			
						-								
EP	1442	90			A2		1985	0612		ΕP	1984-810	575		19841126
EP	1442	90			А3		1987	0527						
	R:	ΑT,	BE,	CH,	DE,	FR	, GB,	ΙΤ,	LI,	LU	J, NL, SE			
DK	8405	714			A		1985	0602		DK	1984-571	4		19841130
AU	8436	094			A		1985	0606		AU	1984-360	94		19841130
ES	5381	72			A1		1986	1116		ES	1984-538	172		19841130
JP	6013	6595			A		1985	0720		JΡ	1984-252	849		19841201
PRIORIT	Y APP	LN.	INFO	.:					1	СН	1983-643	6	Α	19831201
GI														

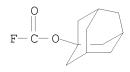
AB Antihypertensive (no data) R1-X1-X2-NR2CHR3CH2NR4CHR5COR6 [I, R1 = H, acyl; R2 = H, alkyl; R3, R5 = H, (substituted) alkyl, (substituted) aryl; R4 = H, alkyl, acyl; R6 = substituted amino, substituted hydroxy; X1, X2 = amino acid residue] and their salts were prepared. Thus, a mixture of 218 mg Z-Phe-His-OH, 207 mg H-Q-NH(CH2)7CO2CMe3, 77 mg 1-hydroxybenzotriazole, and 8 mL DMF was cooled at 0°, 134 mg dicyclohexylcarbodiimide added, the resulting mixture cooled at 0° for 1 h and then maintained at room temperature for 2 h to give Z-Phe-His-Q-NH(CH2)7CO2CMe3 (yield not given).

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (N-blocking by, of phenylalanine)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 120 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:406783 CAPLUS

DOCUMENT NUMBER: 105:6783

ORIGINAL REFERENCE NO.: 105:1269a,1272a

TITLE: Improved method for the synthesis of N $\alpha$ -9-fluorenylmethyloxycarbonyl-N $\delta$ , $\omega$ -

bis-adamantyloxycarbonyl-L-arginine

AUTHOR(S): Presentini, R.; Antoni, G.

CORPORATE SOURCE: Res. Cent., Sclavo S.p.A., Siena, Italy

SOURCE: International Journal of Peptide & Protein Research

(1986), 27(2), 123-6

CODEN: IJPPC3; ISSN: 0367-8377

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 105:6783

AB Fmoc-Arg(Adoc)2-OH (I; Fmoc = 9-fluorenylmethyloxycarbonyl, Adoc = adamantyloxycarbonyl) was prepared from Z-Arg-OH (II, Z = PhCH2O2C) in 3 steps. Thus, II was treated with Adoc-F to give 86% Z-Arg(Adoc)2-OH, which was Z-deblocked by catalytic transfer hydrogenation to give 82% H-Arg(Adoc)2-OH. The latter was treated with Fmoc-ONSu (NSu =

succinimido) to give 93% I.

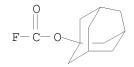
IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(adamantyloxycarbonylation by, of arginine derivative)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 121 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:168818 CAPLUS

DOCUMENT NUMBER: 104:168818

ORIGINAL REFERENCE NO.: 104:26763a,26766a

TITLE: Macromolecular analogs of the copper(II) binding site

of human serum albumin. 3. Synthesis, conformation,

and ion binding properties of glycylglycyl-  $\alpha, \gamma$ -diaminobutyric acid derivatives of

poly(L-lysine)

AUTHOR(S): Foffani, M. T.; Cestaro, M.; Pezzoli, A.; Peggion, E. CORPORATE SOURCE: Biopolym. Res. Cent., Univ. Padua, Padua, 35131, Italy

SOURCE: Macromolecules (1986), 19(4), 945-52

CODEN: MAMOBX; ISSN: 0024-9297

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 104:168818

AB Title poly(L-lysine) derivs. were prepared by condensing Boc-Gly-Gly-Dab-ONSu (Boc = Me3CO2C, Dab =  $\alpha, \gamma$ -diaminobutyric acid residue, NSu = succinimido) with the  $\epsilon$ -amino groups of

poly(L-lysine) and Boc-deblocking the resulting products. Polymeric adducts were prepared with 50% and 100% side-chain modification. The conformational and Cu(II) or Ni(II) binding properties of the derivatized polymers were investigated by absorption and CD techniques. In aqueous

solution

at pH  $\geq$  12 the 50% modified polymer folds into the right-handed  $\alpha$ -helical conformation, whereas the 100% modified polymer remains in a random structure. Both polymers interact strongly with Cu(II) and

Ni(II) ions; in aqueous solution at neutral pH complexes are formed in which each

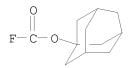
tripeptide chelating unit binds 1 metal ion. The results are compatible with a structure in which the Gly terminal amino group and the 3 consecutive deprotonated peptide nitrogens of the side chain are coordinated to the metal ion. Complex formation causes folding of the main chain into the right-handed,  $\alpha$ -helical conformation even in the case of the 100% modified polymer.

ΙT 62087-82-5

> RL: RCT (Reactant); RACT (Reactant or reagent) (adamantyloxycarbonylation by, of diaminobutyric acid)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



ANSWER 122 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:129710 CAPLUS

DOCUMENT NUMBER: 104:129710
ORIGINAL REFERENCE NO.: 104:20517a,20520a

TITLE: Esters of cephalosporin derivatives

Curran, William Vincent; Schneller, Ross Adma INVENTOR(S):

American Cyanamid Co., USA PATENT ASSIGNEE(S): SOURCE: Eur. Pat. Appl., 31 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	TENT NO.			KINI	)	DATE		API	PLICATION NO.		DATE
EP	157000			A2	-	19851009		EP	1984-116013		19841220
EP	157000			АЗ		19861022					
	R: AT,	BE,	CH,	DE,	FR,	, GB, IT,	LI,	NI	L, SE		
US	4914091			A		19900403		US	1984-595844		19840402
JP	60209589			A		19851022		JΡ	1984-200689		19840927
DK	8406269			A		19851003		DK	1984-6269		19841221
AU	8437021			А		19851010		AU	1984-37021		19841221
AU	571042			В2		19880331					
ES	539367			A1		19860516		ES	1985-539367		19850104
ZA	8500240			А		19850925		ZA	1985-240		19850110
HU	37436			A2		19851228		HU	1985-78		19850110
HU	194252			В		19880128					
FΙ	8501306			A		19851003		FI	1985-1306		19850401
NO	8501336			А		19851003		ИО	1985-1336		19850401
ES	549294			A1		19860501		ES	1985-549294		19851126
RIORIT	Y APPLN.	INFO	. :					US	1984-595844	A	19840402
THER SO	OURCE(S):			CASF	REA(	CT 104:129	9710	)			

The title compds. I (R1 = H, C1-6 alkyl; R2 = C1-6 alkyl, aryl, adamantyl, OR3, R3 = C1-6 alkyl, etc.) useful as oral prodrugs were prepared Thus,  $7\beta$ -[2-(2-aminothiazol-4-yl)-(Z)-2-methoxyiminoacetamido]-3-[(1,2,3-thiadiazol-5-yl)thiomethyl]ceph-3-em-4-carboxylic acid was reacted with C1CH2O2CCMe3 and KI in Me2CO and DMF followed by addition of Et3N to give I (R1 = H, R2 = CMe3)(II). The ED50 of II in Escherichia coli-infected mice was 2 mg/kg compared with 7.2 and 16 for the free acid and Ceflaclor, resp.

IT 71570-32-6

RL: RCT (Reactant); RACT (Reactant or reagent) (alkylation by, of sodium cephalosporin)

RN 71570-32-6 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, chloromethyl ester (CA INDEX NAME)

L4 ANSWER 123 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:110147 CAPLUS

DOCUMENT NUMBER: 104:110147

ORIGINAL REFERENCE NO.: 104:17477a,17480a

TITLE: On the use of five-membered heterocycles in peptide

chemistry

AUTHOR(S): Romani, S.; Moroder, L.; Bovermann, G.; Wuensch, E.

CORPORATE SOURCE: Abt. Peptidchem., Max-Planck-Inst. Biochem.,

Martinsried, D-8033, Fed. Rep. Ger.

SOURCE: Synthesis (1985), (8), 738-42

CODEN: SYNTBF; ISSN: 0039-7881

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 104:110147

GΙ

N-Acyl heterocycles I [Y = O, S, NH, R = PhCH2O2C (Z); Y = O, S, R =  $\frac{1}{2}$ AΒ 9-fluorenylmethoxycarbonyl (Fmoc)] were prepared by treating thiols II (Y =same) with RCl. I are efficient acylating agents for the synthesis of N-Zand N-Fmoc amino acid derivs. I [Y = 0, R = adamantyloxycarbonyl (Adoc)](III) was prepared similarly. III was an efficient Adoc donor, but it was not practical for the synthesis of N-Adoc amino acid derivs. due to solubility problems. Benzoxazoline-2-thione derivs. IV (X = Val, Trp, Phe, Gly) were prepared by condensing II (Y = 0) with Z-X-OH by DCC. IV can be used as activated amino acids in peptide synthesis.

ΙT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent) (N-acylation by, of benzoxazolethiol)

62087-82-5 CAPLUS

Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME) CN

AUTHOR(S):

ANSWER 124 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:523898 CAPLUS

DOCUMENT NUMBER: 103:123898

ORIGINAL REFERENCE NO.: 103:19837a,19840a

TITLE: Synthesis of the hypothetical active site of the nerve

growth factor Wuensch, Erich

CORPORATE SOURCE: Abt. Peptidchem., Max-Planck-Inst. Biochem.,

Martinsried, D-8033, Fed. Rep. Ger.

SOURCE:

Monatshefte fuer Chemie (1985), 116(4), 505-24

CODEN: MOCMB7; ISSN: 0026-9247

DOCUMENT TYPE: Journal LANGUAGE: German

OTHER SOURCE(S): CASREACT 103:123898 GΙ For diagram(s), see printed CA Issue.

Unsym. cystine peptide I corresponding to the 10-25/75-88 sequence of AΒ mouse nerve growth factor was prepared using a sulfenohydrazide procedure for the disulfide coupling of 2 cysteine peptides. Thus, Boc-Gly-Glu(OCMe3)-Phe-Ser(CMe3)-Val-Cys(R)-Asp(OCMe3)-Ser(CMe3)-OH (II; Boc = Me3CO2C, R = SCMe3) was cleaved at the cysteine residue by Bu3P to give II (R = H), which was treated with BocN: NBoc to give sulfenohydrazide derivative II (R = NBocNHBoc), which underwent disulfide coupling with Adoc-His(Adoc)-Trp-Asn-Ser(CMe3)-Tyr(CMe3)-Cys-Thr(CMe3)-Thr(CMe3)-

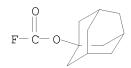
Thr(CMe3)-His-Thr(CMe3)-Phe-Val-Lys(Boc)-OCMe3 (Adoc = adamantyloxycarbonyl) to give the corresponding protected 10-17/75-88 unsym. cystine peptide. The latter was eventually coupled with H-Val-Ser(CMe3)-Val-Trp-Val-Gly-Asp(OCMe3)-Lys(Boc)-OCMe3 to give protected I, which was deblocked by CF3CO2H to give I. Another method for the preparation of I was discussed in which the unprotected 10-25 and 75-88chains were coupled by the sulfenohydrazide method. All peptide fragments and chains needed in the 2 methods were prepared by conventional solution methods. I did not exhibit nerve growth factor activity.

62087-82-5

RN

RL: RCT (Reactant); RACT (Reactant or reagent) (adamantyloxycarbonylation by, of histidine-containing peptide)

62087-82-5 CAPLUS CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



ANSWER 125 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:422197 CAPLUS

DOCUMENT NUMBER: 103:22197 ORIGINAL REFERENCE NO.: 103:3651a,3654a

TITLE: Adamantane-type carbamates AUTHOR(S): Novikova, M. I.; Kozlov, O. F.

USSR CORPORATE SOURCE:

SOURCE: Vestn. Kiev. Politekhn. In-ta. Khim. Mashinostr. i

Tekhnol. (1984), (21), 6-9

From: Ref. Zh., Khim. 1985, Abstr. No. 2Zh144

DOCUMENT TYPE: Journal LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 103:22197

Title only translated. ΙT 10144-56-6P 10144-78-2P

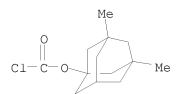
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation and reaction of, with amines, carbamates by)

10144-56-6 CAPLUS RN

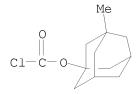
Carbonochloridic acid, 3,5-dimethyltricyclo[3.3.1.13,7]dec-1-yl ester (CA CN INDEX NAME)



RN 10144-78-2 CAPLUS

Carbonochloridic acid, 3-methyltricyclo[3.3.1.13,7]dec-1-yl ester (CA

INDEX NAME)



L4 ANSWER 126 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:204268 CAPLUS

DOCUMENT NUMBER: 102:204268

ORIGINAL REFERENCE NO.: 102:32033a,32036a

TITLE: 2(1H)-Pyridone as leaving group in acylation reactions

- applications in peptide chemistry

AUTHOR(S): Effenberger, Franz; Brodt, Werner

CORPORATE SOURCE: Inst. Org. Chem., Univ. Stuttgart, Stuttgart,

D-7000/80, Fed. Rep. Ger.

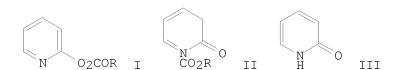
SOURCE: Chemische Berichte (1985), 118(2), 468-82

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal LANGUAGE: German

OTHER SOURCE(S): CASREACT 102:204268

GΙ



AB Pyridyl carbonates I (R = CH2Ph, 1-adamantyl) and mixts. of I [R = CMe3, 1-(1-adamantyl)-1-ethylmethyl] and their corresponding isomers II were prepared as reagents for the introduction of urethane protective groups into amino acids. Thus, the above I and I/II mixts. were treated with amino acids to give the corresponding N-protected amino acids. N-Protected amino acids were condensed with 2(1H)-pyridone (III) by DCC to give the corresponding 2-pyridyl active esters, which were coupled with amino acid esters with elimination of III to give the corresponding N-protected peptides in good yields and high optical purities.

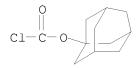
IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(O-acylation by, of pyridone)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 127 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:167153 CAPLUS

DOCUMENT NUMBER: 102:167153

ORIGINAL REFERENCE NO.: 102:26301a,26304a

TITLE: Immunodominant regions of transplantation antigens:

synthesis and antigenicity of a determinant in the

first domain of H-2K molecule

AUTHOR(S): Singh, Bhagirath; Fraga, Ester; Widtman, Jana; Fraga,

Serafin

CORPORATE SOURCE: Dep. Immunol. Chem., Univ. Alberta, Edmonton, AB, T6G

2H7, Can.

SOURCE: Indian Journal of Chemistry, Section B: Organic

Chemistry Including Medicinal Chemistry (1984),

23B(12), 1237-42

CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal LANGUAGE: English

AB The 61-69 fragment of H-2K mol., H-Glu-Arg-Glu-Thr-Gln-Lys-Ala-Lys-Gly-OH,

is predicted to be a major immunodominant determinant by theor.

considerations. This nonapeptide has been synthesized by liquid phase peptide synthesis. The synthetic (61-69) H-2K peptide, when cross-linked to a carrier protein, induced antibodies which bind to the native H-2K mol. on the cell surface as assessed by radioimmunoassay. Such antibodies

can only be raised in allogenic but not in syngenic strains of mice.

Implications of this observation are discussed.

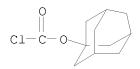
IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(acylation by, of protective arginine)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 128 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:611692 CAPLUS

DOCUMENT NUMBER: 101:211692 ORIGINAL REFERENCE NO.: 101:32099a

TITLE: Recently developed amino protecting groups

AUTHOR(S): Voelter, Wolfgang; Kalbacher, Hubert; Beni, Charles;

Heinzel, Wolfgang; Mueller, Juergen

CORPORATE SOURCE: Physiol. Inst., Univ. Tuebingen, Tuebingen, D-7400,

Fed. Rep. Ger.

SOURCE: Chem. Pept. Proteins, Proc. USSR-FRG Symp., 4th (1984)

, Meeting Date 1982, 103-14. Editor(s): Voelter, Wolfgang, de Gruyter: Berlin, Fed. Rep. Ger.

Wolfgang. de Gruyter: Berlin, Fed. Rep. Ger. CODEN: 52BGAY

DOCUMENT TYPE: Conference LANGUAGE: English

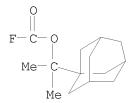
AB Cleavage rates are tabulated for amino acids and peptides protected by 3,5-(Me3C)2C6H3CR2O2C (R = H, Me) or RCMe2O2C (R = PhCH2, 1-adamantyl).

IT 74654-74-3P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, for protection of amino acids)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L4 ANSWER 129 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:552339 CAPLUS

DOCUMENT NUMBER: 101:152339

ORIGINAL REFERENCE NO.: 101:23083a,23086a

TITLE: Substituted carbonic acid esters
INVENTOR(S): Kalbacher, Hubert; Voelter, Wolfgang

PATENT ASSIGNEE(S): Fed. Rep. Ger.

SOURCE: U.S., 9 pp. Cont. of U.S. Ser. No. 71,668, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 4440692 A 19840403 US 1982-372798 19820428

PRIORITY APPLN. INFO.: US 1979-71668 A1 19790831

OTHER SOURCE(S): CASREACT 101:152339; MARPAT 101:152339

AB RCR1R2O2CR3 [R = 1-adamantyl (Ad) or substituted Ad; R1, R2 = C1-8 alkyl; R3 = C1, F, azido, (un)substituted OPh, succinimido, ON:CRCN, O2CCMe2R] were prepared as reagents for the synthesis of protected amino acids and peptides, e.g., AdCMe2O2C (Adpoc) amino acids. Thus, SO3-free FCOCl, obtained from 65% oleum and C13CF, was treated with AdCMe2OH in ether containing Et3N at -40° until gas evolution ceased. The resulting mixture was allowed to stand overnight at -20° to give 95% Adpoc-F. Adpoc-F was treated with amino acids to give Adpoc amino acids, e.g., Adpoc-Trp-OH was obtained in 82% yield.

IT 74654-74-3P

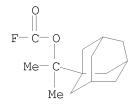
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation and reaction of, with amino acid)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L4 ANSWER 130 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:179873 CAPLUS

DOCUMENT NUMBER: 98:179873

ORIGINAL REFERENCE NO.: 98:27363a,27366a

TITLE: Conventional synthesis of thymopoietin 32-36 (TP 5)

using the acid-labile 1-(1-adamantyl)-1-

methylethoxycarbonyl group

AUTHOR(S): Heinzel, Wolfgang; Kronbach, Thomas; Voelter, Wolfgang

CORPORATE SOURCE: Physiol. Chem. Inst., Univ. Tuebingen, Tuebingen,

D-7400/1, Fed. Rep. Ger.

SOURCE: Zeitschrift fuer Naturforschung, Teil B: Anorganische

Chemie, Organische Chemie (1982), 37B(12), 1652-8

CODEN: ZNBAD2; ISSN: 0340-5087

DOCUMENT TYPE: Journal LANGUAGE: German

AB The title peptide, H-Arg-Lys-Asp-Val-Tyr-OH, was prepared by stepwise couplings in solution using the title group (Adpoc) for the protection of NH2

groups. The Adpoc group can be cleaved selectively by mild acidolysis (3%

CF3CO2H in CH2Cl2) in the presence of Me3CO2C and tert-Bu groups.

IT 74654-74-3P

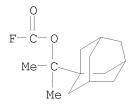
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation and reaction of, with valine derivs.)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L4 ANSWER 131 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:161159 CAPLUS

DOCUMENT NUMBER: 98:161159

ORIGINAL REFERENCE NO.: 98:24471a,24474a

TITLE: The 1-(3,5-di-tert-butylphenyl)-1-methylethoxycarbonyl

(t-Bumeoc) residue, a novel extremely acid-labile

amino protecting group for peptide syntheses

AUTHOR(S): Voelter, Wolfgang; Mueller, Juergen

CORPORATE SOURCE: Physiol.-Chem. Inst., Univ. Tuebingen, Tuebingen,

D-7400, Fed. Rep. Ger.

SOURCE: Liebigs Annalen der Chemie (1983), (2), 248-60

CODEN: LACHDL; ISSN: 0170-2041

DOCUMENT TYPE: Journal LANGUAGE: German

GΙ

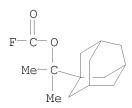
AB The t-Bumeoc group was used as a protective group for the NH2 group in peptide synthesis. Benzoate I was treated with MeMgI to give alc. II (R = H), which was treated with ClCOF to give I (R = COF) (t = Bumeoc-F). Amino acids were N-acylated with t-Bumeoc-F to give t-Bumeoc amino acids, which were characterized by 13C NMR. The t-Bumeoc group was cleaved under very mild acidic conditions; the kinetics of this cleavage was studied. t-Bumeoc-Phe-ONSu (NSu = succinimido) was coupled with D-leucine to give t-Bumeoc-Phe-D-Leu-OH, which was coupled with H-Arg-Phe-NH2 to give t-Bumeoc-Phe-D-Leu-Arg-Phe-NH2.

IT 74654-74-3

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with phenylalanine)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L4 ANSWER 132 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:54416 CAPLUS

DOCUMENT NUMBER: 98:54416

ORIGINAL REFERENCE NO.: 98:8397a,8400a

TITLE: Determination of NIm- $\tau$  and NIm- $\pi$  acylated

histidines formed during acylation of Boc-His-OMe

AUTHOR(S): Groenvald, F. C.; Lundt, B. F.; Johansen, N. L.

CORPORATE SOURCE: Novo Res. Inst., Copenhagen, Den.

SOURCE: Pept., Proc. Eur. Pept. Symp., 16th (1981), Meeting

Date 1980, 706-10. Editor(s): Brunfeldt, K.

Scriptor: Copenhagen, Den.

CODEN: 48NWA3
DOCUMENT TYPE: Conference
LANGUAGE: English

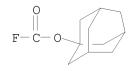
AB When Boc-His-OMe (Boc = Me3CO2C) was acylated with adamantyloxycarbonyl fluoride (Adoc-F), Boc-His(Adoc)-OMe was obtained as an isomeric mixture of the NIm- $\tau$ - and NIm- $\pi$ -substituted compds. Boc-Ala-His(Adoc)-Phe-OMe obtained by an acylation with Adoc-F consisted of a similar isomeric mixture When Boc-His-OMe was acylated with tosyl chloride or isobutyloxycarbonyl chloride, only the NIm- $\tau$ -substituted compds. were obtained. The position of acylation on the imidazole ring was determined by comparing the 13C NMR spectra of the NIm-acylated compds. with the calculated spectra of NIm- $\tau$ - and NIm- $\pi$ -acetylhistidine.

IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent) (NIm-acylation by, of histidine derivative)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 133 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:616689 CAPLUS

DOCUMENT NUMBER: 97:216689

ORIGINAL REFERENCE NO.: 97:36389a,36392a

TITLE: The 1-(1-adamanty1)-1-methylethoxycarbonyl group for

amino protection in peptide synthesis

AUTHOR(S): Voelter, Wolfgang; Kalbacher, Hubert

CORPORATE SOURCE: Inst. Org. Chem., Tuebingen Univ., Tuebingen, D-7400,

Fed. Rep. Ger.

SOURCE: Pept., Proc. Eur. Pept. Symp., 16th (1981), Meeting

Date 1980, 144-9. Editor(s): Brunfeldt, K. Scriptor:

Copenhagen, Den. CODEN: 48NWA3

DOCUMENT TYPE: Conference LANGUAGE: English

AB The title group (Adpoc) was incorporated into amino acids by N-acylating the amino acids with Adpoc-OPh, Adpoc-F, or Adpo-oxiimino-2-

phenylacetonitrile. The resulting Adpoc amino acids are crystalline compds. and are stable over months at room temperature; they are also stable to  ${\tt UV}$ 

light. The Adpoc group is cleaved under mild acidolytic conditions.

Adpoc amino acids were used in the solid-phase synthesis of

thymopoietin-(36-36), H-Arg-Lys-Asp-Val-Tyr-OH, and in the conventional

solution synthesis of thyrotropin-releasing hormone, pyroGlu-His-Pro-NH2.

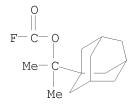
IT 74654-74-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with amino acids)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L4 ANSWER 134 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:553115 CAPLUS

DOCUMENT NUMBER: 97:153115

ORIGINAL REFERENCE NO.: 97:25363a,25366a

TITLE: Electropreparation of alkyl-substituted

perfluoroadamantane

PATENT ASSIGNEE(S): Agency of Industrial Sciences and Technology, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

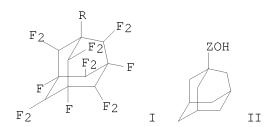
CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57079187	A	19820518	JP 1980-153995	19801031
JP 57043637	В	19820916		
PRIORITY APPLN. INFO.:			JP 1980-153995	19801031
GI				



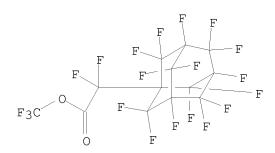
AB Alkyl-substituted perfluoroadamantones I [R = C1-4 straight chain perfluoroalkyl] were obtained by the electrolytic fluorination of II [HOZ =  $\alpha$ -hydroxy C1-4 straight chain alkyl] in anhydrous HF under an inert gas cover.

IT 82829-41-2P

RN

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (synthesis of, by electrochem. fluorination of hydroxyalkyladamantane) 82829-41-2 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-acetic acid,  $\alpha,\alpha,2,2,3,4,4,5,6,6,$  7,8,8,9,9,10,10-heptadecafluoro-, trifluoromethyl ester (CA INDEX NAME)



L4 ANSWER 135 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:218200 CAPLUS

DOCUMENT NUMBER: 96:218200

ORIGINAL REFERENCE NO.: 96:36080h,36081a

TITLE: Carbon-13 NMR spectroscopy of new amino protective

groups

AUTHOR(S): Fuchs, Wolfram; Kalbacher, Hubert; Voelter, Wolfgang CORPORATE SOURCE: Abt. Org. Phys. Biochem., Univ. Tuebingen, Tuebingen,

7400, Fed. Rep. Ger.

SOURCE: Organic Magnetic Resonance (1981), 17(3), 157-62

CODEN: ORMRBD; ISSN: 0030-4921

DOCUMENT TYPE: Journal LANGUAGE: English

AB The 13C NMR spectra 30 urethane group N-protected amino acids, e.g. N-(1-adamantyl-1-methylethoxycarbonyl)glycine, were recorded. The 13C NMR parameters correlate to the speeds of acidolytic cleavage of the

protective group.

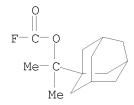
IT 74654-74-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with amino acids)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L4 ANSWER 136 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1981:585423 CAPLUS

DOCUMENT NUMBER: 95:185423

ORIGINAL REFERENCE NO.: 95:30927a,30930a

TITLE: Acylated tripeptides as chemotaxin antagonists

AUTHOR(S): Opitz, Wolfgang; Fruchtmann, Romanis

CORPORATE SOURCE: Chem. Abt., Troponwerke G.m.b.H., Cologne, D-5000/80,

Fed. Rep. Ger.

SOURCE: Hoppe-Seyler's Zeitschrift fuer Physiologische Chemie

(1981), 362(8), 1037-41

CODEN: HSZPAZ; ISSN: 0018-4888

DOCUMENT TYPE: Journal LANGUAGE: German

AB Four acyl derivs. of the chemotaxin N-formyl-L-Met-L-Leu-L-Phe were synthesized and studied for their chemotaxis inhibitory activity. Thus, N-(t-butylcarbonyl)-L-Met-L-Leu-L-Phe, N-adamantyloxycarbonyl-L-Met-L-Leu-L-Phe, N-adamantylcarbonyl-L-Met-L-Leu-L-Phe, and N-adamantylsulfinyl-L-Met-L-Leu-L-Phe inhibited N-formyl-L-Met-L-Leu-L-Phe-induced leukocyte chemotaxis. The effects of these acylated derivs. on leukocyte chemotaxis were not due to a direct effect of these substances on chemokinesis.

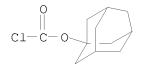
IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with methionyl-leucyl-phenylalanyl Me ester)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 137 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1981:140148 CAPLUS

DOCUMENT NUMBER: 94:140148

ORIGINAL REFERENCE NO.: 94:22965a,22968a

TITLE: 1-(1-Adamantyl)-1-methylethoxycarbonyl (ADPOC): a new

group for amino protection in peptide synthesis with

advantageous properties

AUTHOR(S): Voelter, W.; Kalbacher, H.

CORPORATE SOURCE: Inst. Org. Chem., Univ. Tuebingen, Tuebingen, 7400,

Fed. Rep. Ger.

SOURCE: Pept., Struct. Biol. Funct., Proc. Am. Pept. Symp.,

6th (1979), 325-8. Editor(s): Gross, Erhard; Meienhofer, Johannes. Pierce Chem. Co.: Rockford,

Ill.

CODEN: 44LVAU

DOCUMENT TYPE: Conference LANGUAGE: English

GΙ



AB Adamantylisopropanol I (R = H) was treated with ClCO2Ph, FCOCl, and COCl2/HON:CPhCN to give adamantane reagents I (R = CO2Ph, COF, and CON:CPhCN), which were treated with amino acids to give ADPOC amino acids. Adamantanecarboxylate II (Rl = H) was esterified with PCl5/EtOH to give II (Rl = Et), which was treated with MeMgI to give I (R = H). ADPOC amino acids and peptides are stable for months at room temperature. The ADPOC group can be removed 1,000 times faster than the Me3CO2C group under very mild acidolytic conditions.

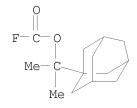
IT 74654-74-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with amino acids)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L4 ANSWER 138 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1981:103796 CAPLUS

DOCUMENT NUMBER: 94:103796

ORIGINAL REFERENCE NO.: 94:16963a,16966a

TITLE: 1-(1-Adamantyl)-1-methylethoxycarbonyl (Adpoc) fluoride, a useful reagent for synthesis of a new

class of protected amino acids with advantageous

properties for peptide synthesis

AUTHOR(S): Kalbacher, Hubert; Voelter, Wolfgang

CORPORATE SOURCE: Inst. Org. Chem., Univ. Tuebingen, Tuebingen, D-7400,

Fed. Rep. Ger.

SOURCE: Journal of the Chemical Society, Chemical

Communications (1980), (24), 1265-6

CODEN: JCCCAT; ISSN: 0022-4936

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 94:103796

AB Adpoc amino acids were prepared in 69-89% yields under mild conditions by acylating the amino acid with the title reagent (I) in DMF/Et2O containing Et3N at 0° for 6 h. I was prepared in 95% yield by treatment of 2-(1-adamanty1) propan-2-ol with FCOCl (CH2Cl2, Et3N, -40 to -30°, overnight).

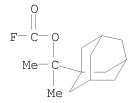
IT 74654-74-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and acylation by, of amino acids)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L4 ANSWER 139 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:621035 CAPLUS

DOCUMENT NUMBER: 93:221035

ORIGINAL REFERENCE NO.: 93:35307a,35310a

TITLE: Structure-function studies on gastrointestinal

hormones. I. Synthesis of secretin analogs and their

biological and immunological properties

AUTHOR(S): Moroder, Luis; Jaeger, Ernst; Drees, Fritz; Gemeiner,

Manfred; Knof, Siegward; Stelzel, Hans Peter; Thamm, Paul; Bataille, Dominique; Domschke, Sigurd; et al.

CORPORATE SOURCE: Abt. Peptidchem., Max-Planck-Inst. Biochem.,

Martinsried, D-8033, Fed. Rep. Ger.

SOURCE: Bioorganic Chemistry (1980), 9(1), 27-54

CODEN: BOCMBM; ISSN: 0045-2068

DOCUMENT TYPE: Journal LANGUAGE: English

Gastrointestinal hormone analogs were prepared by crossing secretin (SN) at the invarient 6-position with the N-terminal hexapeptide sequences of vasoactive intestinal peptide (VIP), gastric inhibitory peptide (GIP) and glucagon(GLUN). Thus, Adoc-His(Adoc)-Ser(CMe3)-Asp(OCMe3)-Ala-Val-Phe-OH (Adoc = adamantyloxycarbonyl) was coupled with H-Thr(CMe3)-Ser(CMe3)-Glu(OCMe3)-Leu-Ser(CMe3)-Arg(HBr)-Leu-Arg(HBr)-Asp(OCMe3)-Ser(CMe3)-Ala-Arg(HBr)-Leu-Glu-Arg(HBr)-Leu-Leu-Gln-Gln-Leu-Val-NH2 in DMF by dicyclohexylcarbodiimide/N-hydroxybenzotriazole to give the protected heptacosapeptide amide, which was deblocked to give [Ala4, Val5]-secretin (VIP-SN). [Gln3]-secretin (GLUN-SN) and [Tyr1,Ala2,Glu3]-secretin (GIP-SN) were prepared by a similar fragment condensation. [Phe1, Phe2, Trp3, Lys4] - secretin a secretion analog containing the 6-13 sequence of somatostatin as the N-terminal octapeptide sequence, and  $N\alpha-3-(4-hydroxyphenyl)$  propionyl- $\beta$ -Ala-secretin were also prepared by fragment condensations. The biol. and immunol. properties of the above peptides were compared to those of synthetic secretion.

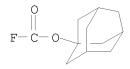
IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with histidine-containing peptide derivative)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 140 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:514959 CAPLUS

DOCUMENT NUMBER: 93:114959

ORIGINAL REFERENCE NO.: 93:18433a,18436a

TITLE: Peptides. XXXIV. Synthesis of the 1-16 fragment of a

lysozyme analog

AUTHOR(S): Galpin, I. J.; Hancock, F. E.; Handa, B. K.; Jackson,

A. G.; Kenner, G. W.; Ramage, R.; Singh, B.

CORPORATE SOURCE: Robert Robinson Lab., Univ. Liverpool, Liverpool, L69

3BX, UK

SOURCE: Tetrahedron (1979), 35(23), 2771-8

CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE: Journal LANGUAGE: English

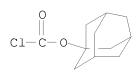
AB Protected title peptide, Adoc-Lys(Adoc)-Val-Phe-Gly-Orn(Adoc)-Cys(Acm)-Glu(OCMe3)-Leu-Ala-Ala-Ala-Nle-Lys(Adoc)-Ala-Leu-Gly-OPh (I; Adoc = adamantyloxycarbonyl, Acm = CH2NHAc) was prepared by deblocking Z-Ala-Nle-Lys(Adoc)-Ala-Leu-Gly-OPh (II, Z = PhCH2O2C) by hydrogenolysis and coupling the resulting Z-deblocked hexapeptide with Adoc-Lys(Adoc)-Val-Phe-Gly-Orn(Adoc)-Cys(Acm)-Glu(OCMe3)-Leu-Ala-Ala-OH (III) by dicyclohexylcarbodiimide (DCC)/N-hydroxysuccinimide (HONSu). I was purified by gel filtration on Sephadex LH-60 by elution with N-methylpyrrolidone. II was prepared by stepwise peptide coupling reactions, whereas III was prepared by coupling Adoc-Lys(Adoc)-Val-Phe-Gly-OH to H-Orn(Adoc)-Cys(Acm)-Glu(OCMe3)-Leu-Ala-Ala-OPh by DCC/HONSu and cleaving the Ph ester from the resulting protected decapeptide ester.

IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with lysine and ornithine)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 141 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:514050 CAPLUS

DOCUMENT NUMBER: 93:114050

ORIGINAL REFERENCE NO.: 93:18244h,18245a

TITLE: Adamantanepropyl esters as protective groups

INVENTOR(S): Karlbaha, H.; Bowter, B.

PATENT ASSIGNEE(S): Luxembourg

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATI	ENT N	10.			KINI	)	DATE		AP	PLICA'	TION N	10.		DATE
JP !	55043	3087			A	_	1980	0326	JP	1979	 -11564	16	_	19790907
JP (	06062	2511			В		1994	0817						
EP :	10587	7			A1		1980	0514	EP	1979	-10316	0		19790827
EP :	10587	7			В1		1983	0601						
	R:	AT,	BE,	CH,	DE,	FR	, GB,	ΙΤ,	NL, S	E				
AT 3	3634				T		1983	0615	AT	1979	-10316	0		19790827
JP (	62246	5548			А		1987	1027	JP	1986	-31610	12		19861226
JP (	01052	2748			А		1989	0228	JP	1988	-86213	}		19880406
JP (	03017	7824			В		1991	0311						
PRIORITY	APPI	N. :	INFO	. :					LU	1978	-80207	1	Α	19780907
									EP	1979	-10316	0	А	19790827
									JP	1979	-11564	16		19790907

OTHER SOURCE(S): MARPAT 93:114050

Ι

GΙ

AB Adamantanepropyl esters (I; R = F, PhO, amino acid residue), useful as protective groups in peptide synthesis, were prepared Thus, a mixture of 0.1 mol 2-(1-adamantyl)-2-propanol, 14 mL Et3N, and FCOCl containing SO3 (by reaction of 60 g 65% fuming H2SO4 with 25 mL FCCl3) in Et2O was kept at 40°. Et3N.HCl was filtered off, and the mixture degassed at 10° and 200 mm Hg to give 95% I (R = F). Similarly prepared were I (R = PhO) and 13 amino acid derivs., e.g., I (R = NHCH2CO2H).

IT 74654-74-3P

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)

L4 ANSWER 142 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:198749 CAPLUS

DOCUMENT NUMBER: 92:198749

ORIGINAL REFERENCE NO.: 92:32219a,32222a

TITLE: The syntheses of human big gastrin I and its

32-luecine analog. 2. Preparation of fragments 9-14

and 1-8

AUTHOR(S): Wendlberger, Gerhard; Moroder, Luis; Thamm, Paul;

Wilschowitz, Ludwig; Wuensch, Erich

CORPORATE SOURCE: Abt. Peptidchem., Max-Planck-Inst. Biochem.,

Martinsried, D-8033, Fed. Rep. Ger.

SOURCE: Monatshefte fuer Chemie (1979), 110(6), 1317-30

CODEN: MOCMB7; ISSN: 0026-9247

DOCUMENT TYPE: Journal LANGUAGE: German

AB The title 1-8 fragment pyroGlu-Leu-Gly-Pro-Gln-Gly-His-Pro-OH was prepared by coupling pyroGlu-Leu-Gly-Pro-Gln-Gly-OH (I) with H-His-Pro-OCMe3 by dicyclohexylcarbodiimide/N-hydroxysuccinimide and cleaving the tert-Bu ester from the resulting pyroGlu-Leu-Gly-Pro-Gln-Gly-His-Pro-OCMe3.

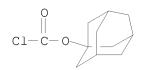
Z-Gly-Pro-ONSu (Z = PhCH2O2C, NSu = succinimido) was coupled to H-Gln-Gly-OCMe3 to give the tetrapeptide, which was Z-deblocked and then coupled to Z-Leu-ONSu to give Z-Leu-Gly-Pro-Gln-Gly-OCMe3. The latter was Z-deblocked and then coupled to pyroGlu-OC6H2Cl3 to give the hexapeptide tert-Bu ester, which was de-tert-butylated with CF3CO2H to give I. The title 9-14 fragment o-O2NC6H4S-Ser(CMe3)-Leu-Val-Ala-Asp(OCMe3)-Pro-OH was prepared by stepwise active ester couplings.

IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with histidine-containing peptide)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 143 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:191082 CAPLUS

DOCUMENT NUMBER: 92:191082

ORIGINAL REFERENCE NO.: 92:30825a,30828a

TITLE: Soft drugs. 3. A new class of anticholinergic agents AUTHOR(S): Bodor, Nicholas; Woods, Ross; Raper, Colin; Kearney,

Pauline; Kaminski, James J.

CORPORATE SOURCE: Coll. Pharm., Univ. Florida, Gainesville, FL, 32610,

USA

SOURCE: Journal of Medicinal Chemistry (1980), 23(5), 474-80

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal LANGUAGE: English

GI

AB The title compds., quaternary ammonium esters in which there is only 1 C separating the ester 0 and the quaternary head, were prepared from alkylating agents, followed by their reaction with tertiary amines.  $(\pm)-1-[(Cyclopentylphenylacetyl)oxy]-1-methylpyrrolidinium chloride$ 

 $[(\pm)-I]$  [71570-38-2] was very effective in controlling eccrine sweating in man. The more effective anticholinergics had  $\leq 10$  times higher acetylcholine antagonist activity than atropine, but a much shorter duration of action. They hydrolyzed with simultaneous destruction of the quaternary head. The potency of the compds. was affected by the amine moiety. Structure-activity relations are discussed.

IT 71570-32-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and quaternization of tertiary amines by)

RN 71570-32-6 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, chloromethyl ester (CA INDEX NAME)

L4 ANSWER 144 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:589328 CAPLUS

DOCUMENT NUMBER: 91:189328

ORIGINAL REFERENCE NO.: 91:30447a,30450a

TITLE: phloretyl- $\beta$ -alanyl-secretin

INVENTOR(S):
Wuensch, Erich

PATENT ASSIGNEE(S): Max-Planck-Gesellschaft zur Foerderung der

Wissenschaften e.V., Fed. Rep. Ger.

SOURCE: U.S., 8 pp. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4167508	A	19790911	US 1977-807533	19770617
DE 2627988	A1	19780105	DE 1976-2627988	19760623
PRIORITY APPLN. INFO.:			DE 1976-2627988 A	19760623
OTHER SOURCE(S):	MARPAT	91:189328		

AB Methods are described for the preparation of phloretyl- $\beta$ -alanylsecretin (I), I radioiodination with 125I, and the use of radioiodinated I and a

secretin-specific antibody for the radioimmunoassay of secretin in biol. samples. Procedures also are discussed for preparing salts and protected derivs. of I and their radioiodination.

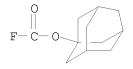
IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with phenylalanine-containing peptides)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 145 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:557748 CAPLUS

DOCUMENT NUMBER: 91:157748

ORIGINAL REFERENCE NO.: 91:25465a,25468a

TITLE: Anticholinergic substances with an antisecretory

effect and their use

INVENTOR(S): Bodor, Nicholas Stephen PATENT ASSIGNEE(S): INTERx Research Corp., USA

SOURCE: Ger. Offen., 70 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
DE 2854308	 A1	19790621	DE 1978-2854308		19781215
DK 7805341	А	19790617	DK 1978-5341		19781129
NO 7804229	А	19790619	NO 1978-4229		19781215
NO 148776	В	19830905			
NO 148776	С	19831214			
JP 54098711	A	19790803	JP 1978-156013		19781215
SE 436027	В	19841105	SE 1978-12911		19781215
SE 436027	С	19850214			
NL 7812257	А	19790619	NL 1978-12257		19781218
AU 7842646	A	19790621	AU 1978-42646		19781218
AU 531835	B2	19830908			
GB 2010270	A	19790627	GB 1978-48850		19781218
GB 2010270	В	19821020			
FR 2422624	A1	19791109	FR 1978-35596		19781218
FR 2422624	B1	19831014			
CA 1102345	A1	19810602	CA 1978-318112		19781218
AT 7809014	A	19810815	AT 1978-9014		19781218
AT 366380	В	19820413			
RIORITY APPLN. INFO.:			US 1977-861210	A	19771216
THER SOURCE(S):	MARPAT	91:157748			
SI					

CHPhCO<sub>2</sub>CH<sub>2</sub>N<sup>+</sup>Et<sub>3</sub> Cl<sup>-</sup>

AB RR1R2CCOX1CHR3N+R4R5R6 X- (R-R3 = optionally substituted C1-8 alkyl, aryl, cycloalkyl, cycloalkenyl; CRR1R2 = cyclic; NR4R5R6 = amino; X = anion; X1 = 0, S) were prepared Thus, cyclopentylphenylacetyl chloride was treated with CH2O to give chloromethyl cyclopentylphenylacetate, which was treated with NEt3 to give the quaternary salt I. The salts have anticholinergic and antiperspirant activity.

IT 71570-32-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and quaternization of amines by)

RN 71570-32-6 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, chloromethyl ester (CA INDEX NAME)

C1CH<sub>2</sub>-O-C

L4 ANSWER 146 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:152109 CAPLUS

DOCUMENT NUMBER: 88:152109

ORIGINAL REFERENCE NO.: 88:23957a,23960a

TITLE: Adamantyl perfluoroisobutenyl ethers

AUTHOR(S): Kryukov, L. N.; Vitkovskii, V. S.; Kryukova, L. Yu.;

Isaev, V. L.; Sterlin, R. N.; Knunyants, I. L.

CORPORATE SOURCE: USSR

SOURCE: Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva im. D.

I. Mendeleeva (1978), 23(1), 115
CODEN: ZVKOA6; ISSN: 0373-0247

DOCUMENT TYPE: Journal LANGUAGE: Russian

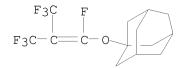
AB Treating (F3C)2C:CF2 with ROH (R = 2-naphthyl, 1- and 2-adamantyl) and Na gave 33-41% (F3C)2C:CFOR.

IT 66258-26-2P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 66258-26-2 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[[1,3,3,3-tetrafluoro-2-(trifluoromethyl)-1-propenyl]oxy]- (9CI) (CA INDEX NAME)



L4 ANSWER 147 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:148588 CAPLUS

DOCUMENT NUMBER: 88:148588

ORIGINAL REFERENCE NO.: 88:23383a,23386a

TITLE: Secretin determination

INVENTOR(S):
Wuensch, Erich

PATENT ASSIGNEE(S): Max-Planck-Gesellschaft zur Foerderung der

Wissenschaften e.V., Fed. Rep. Ger.

SOURCE: Ger. Offen., 31 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
DE 2627988	A1	19780105	DE 1976-2627988		19760623
CH 629474	A5	19820430	CH 1977-6712		19770601
US 4167508	A	19790911	US 1977-807533		19770617
FR 2355806	A1	19780120	FR 1977-19285		19770623
JP 53018568	A	19780220	JP 1977-73935		19770623
PRIORITY APPLN. INFO.:			DE 1976-2627988	Α	19760623

AB Phloretyl- $\beta$ -alanylsecretin is synthesized, labeled with 125I, and used in the radioimmunoassay of secretin. Thus, 3-(4-

hydroxyphenyl)propionic acid was reacted with 4-nitrobenzyl bromide in DMF

to yield 4-nitrobenzyl 3-(4-hydroxyphenyl)propionate. The latter was reacted with isobutene to yield the 4-tert-butoxy derivative that was

saponified

with NaOH and reacted with N-hydroxysuccinimide to form

3-(4-tert-butoxyphenyl)propionic acid succinimido ester. The latter was

reacted with  $\beta$ -alanine to form 3-(4-tert-butoxyphenyl)propanoyl-

 $\beta$ -alanine that was used in a series of steps to yield

phloretyl- $\beta$ -alanylsecretin. The latter was labeled with 125I to a

sp. activity of 350  $\mu\text{Ci}/\mu\text{g}$ . This was used in a radioimmunoassay

procedure for determining secretin in solution at 0-125 pg/mL.

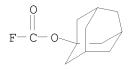
IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with heptapeptide, secretin determination in relation to)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 148 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1977:602090 CAPLUS

DOCUMENT NUMBER: 87:202090

ORIGINAL REFERENCE NO.: 87:32015a,32018a

TITLE: Total synthesis of human big gastrin I and the 32-leucine analog. (Preliminary communication)

AUTHOR(S): Wuensch, E.; Wendlberger, G.; Hallett, A.; Jaeger, E.;

Knof, S.; Moroder, L.; Scharf, R.; Schmidt, I.; Thamm,

P.; Wilschowitz, L.

CORPORATE SOURCE: Abt. Peptidchem., Max-Planck-Inst. Biochem., Munich,

Fed. Rep. Ger.

SOURCE: Zeitschrift fuer Naturforschung, C: Journal of

Biosciences (1977), 32C(7-8), 495-506

CODEN: ZNCBDA; ISSN: 0939-5075

DOCUMENT TYPE: Journal LANGUAGE: German

GI For diagram(s), see printed CA Issue.

AB Human big gastrin I (I) was prepared by coupling a protected 1-8 fragment to a protected 9-34 fragment (II) and deblocking the resulting protected 1-34 fragment. Protected peptide fragments related to sequences 9-14, 15-30, 21-22, 23-27, and 28-34 were prepared and used in the fragment peptide

synthesis of II. The 32-leucine analog of I was also prepared

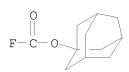
IT 62087-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(acylation by, of imidazole of histidine-containing peptide)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 149 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1977:140430 CAPLUS

DOCUMENT NUMBER: 86:140430

ORIGINAL REFERENCE NO.: 86:22069a,22072a

TITLE: 1-Adamantyl fluoroformate, a new reagent for the

introduction of the 1-adamantyloxycarbonyl protecting

group

AUTHOR(S): Moroder, Luis; Wackerle, Lorenz; Wuensch, Erich

CORPORATE SOURCE: Abt. Peptidchem., Max-Planck-Inst. Biochem., Munich,

Fed. Rep. Ger.

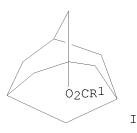
SOURCE: Hoppe-Seyler's Zeitschrift fuer Physiologische Chemie

(1976), 357(11), 1647-50

CODEN: HSZPAZ; ISSN: 0018-4888

DOCUMENT TYPE: Journal LANGUAGE: German

GI



AB 1-Adamantyl fluoroformate (I, R1 = F) was prepared in 91% yield by acylating 1-adamantanol with ClCOF. I [R1 = Ala-OH, Asn-OH, Asp(OCH2Ph)-OH, Gln-OH, Glu(OCH2Ph)-OH, Val-OH] were prepared in 84-94% yields by treating the appropriate amino acid with I (R1 = F). Histidine derivs. which had the imidazolyl group protected with the 1-adamanyloxycarbonyl group were also prepared

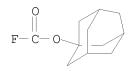
IT 62087-82-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with amino acids)

RN 62087-82-5 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 150 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:543446 CAPLUS

DOCUMENT NUMBER: 85:143446

ORIGINAL REFERENCE NO.: 85:23005a,23008a

TITLE: Facile synthesis of  $N\alpha$ -

(benzyloxycarbonyl) histidine and its use in the

preparation of various histidine derivatives protected

at the imidazole- $\mathbb{N}$ 

AUTHOR(S): Eckstein, Heiner

CORPORATE SOURCE: Inst. Org. Chem. I, Univ. Tuebingen, Tuebingen, Fed.

Rep. Ger.

SOURCE: Justus Liebigs Annalen der Chemie (1976), (7-8),

1289-94

CODEN: JLACBF; ISSN: 0075-4617

DOCUMENT TYPE: Journal

LANGUAGE: German

AB PhCH2O2C-His-OH (I) was prepared by direct acylation of histidine with PhCH2O2CC1. I reacted with (R = 4-Me C6H4SO2, adamantyloxycarbonyl, Me3CO2C3 X = Cl, F) to give PhCH2O2C-His(R)-OH. Attempts to obtain crystalline

PhCH2O2C-His[C6H3(NO2)2]-OH failed.

IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with benzyloxycarbonyl histidine)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

L4 ANSWER 151 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:523872 CAPLUS

DOCUMENT NUMBER: 85:123872

ORIGINAL REFERENCE NO.: 85:19889a,19892a

TITLE: Synthesis of 2-substituted 4-[3-(10-

phenothiazinyl)propyl]-1-piperazinylethyl carbonates

AUTHOR(S): Spasskaya, I. F.; Lapin, I. P.

CORPORATE SOURCE: USSR

SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1976), 10(4), 24-7

ΙI

CODEN: KHFZAN; ISSN: 0023-1134

DOCUMENT TYPE: Journal LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 85:123872

GΙ

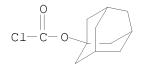
AB Carbonates I (R = Cl, CF3) and their HCl and maleate salts were prepared by reaction of the alc. II (R1 = H) (III) with II (R1 = COCl) (prepared by reaction of III with COCl2). II (R1 = 1-adamantyloxycarbonyl) were prepared by reaction of III with 1-adamantyl chloroformate. I (R = CF3) at 4/mg/kg (i.p. mice) had long-term neuroleptic activity.

IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with [(phenothiazinyl)propyl]piperazinylethanol)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 152 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:84737 CAPLUS

DOCUMENT NUMBER: 84:84737

ORIGINAL REFERENCE NO.: 84:13861a,13864a

TITLE: Identification and biological activity of peptides

containing a partially benzyloxycarbonylated

L-arginine on their amino terminus

AUTHOR(S): Eisele, Karl

CORPORATE SOURCE: Physiol. Chem. Inst., Univ. Tuebingen, Tuebingen, Fed.

Rep. Ger.

SOURCE: Hoppe-Seyler's Zeitschrift fuer Physiologische Chemie

(1975), 356(10), 1497-503 CODEN: HSZPAZ; ISSN: 0018-4888

DOCUMENT TYPE: Journal LANGUAGE: German

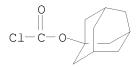
AB N $\omega$ -Z-L-Arg-L-Phe-L-Phe-HCl [58200-52-5] (Z = benzyloxycarbonyl) was the antibiotically active compound in a peptide mixture which was obtained by treating Z3-L-Arg-L-Phe-L-Phe [58200-53-6] with HBr-F3CCO2H or 4 N HBr-HOAc. Identification of this compound was achieved by thin-layer chromatog., enzymic digestion and autobiograms with fungi. The pure N $\omega$ -Z-L-Arg-L-Phe-L-Phe was not the only compound with antibiotic qualities; generally, all peptides with the sequence N $\omega$ -Z-L-Arg-X-L-Phe (X might be any amino acid) are antibiotically active. All were antagonized by L-aspartic acid [56-84-8] and asparagine [70-47-3] in the cross-strip test (on fungi). The antibiotic activity of all these peptides must be due to the N $\omega$ -Z-L-Arg-residue provided that it is coupled to a dipeptide X-L-Phe, or to an aromatic system (e.g., L-phenylalanine or benzylamine).

IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with benzyloxycarbonyl arginine)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 153 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1974:27459 CAPLUS

DOCUMENT NUMBER: 80:27459

ORIGINAL REFERENCE NO.: 80:4537a,4540a

TITLE: Arginine derivatives for peptide syntheses

AUTHOR(S): Losse, Guenter; Rueger, Carla

CORPORATE SOURCE: Sekt. Chem., Tech. Univ. Dresden, Dresden, Fed. Rep.

Ger.

SOURCE: Zeitschrift fuer Chemie (1973), 13(9), 344-5

CODEN: ZECEAL; ISSN: 0044-2402

DOCUMENT TYPE: Journal LANGUAGE: German

AB Ng-(Benzyloxycarbonyl)- (I), N $\delta$ ,N $\omega$ -diadamantyl- (II), and

 $Ng-trityl-N\alpha-(tert-butoxycarbonyl)$  arginine (III) were prepared from N

a°-(tert-butoxycarbonyl)arginine and PhCH2O2CN3,

adamantyloxycarbonyl chloride, or trityl chloride, resp. For solid phase

syntheses of peptides only I was useful, because II and III were not

stable against CF3CO2H-CH2Cl2.

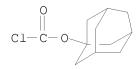
IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with (tert-butoxycarbonyl)arginine)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 154 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1972:500906 CAPLUS

DOCUMENT NUMBER: 77:100906

ORIGINAL REFERENCE NO.: 77:16631a,16634a

TITLE: Comparison of decomposition and solvolysis reactions

of 1-adamantyl chloroglyoxylate and 1-adamantyl

chloroformate

AUTHOR(S): Kevill, D. N.; Weitl, F. L.

CORPORATE SOURCE: Dep. Chem., North. Ill. Univ., DeKalb, IL, USA

SOURCE: Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1972-1999)

(1972), (17), 2162-4

CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal LANGUAGE: English

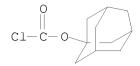
AB Decomposition of 1-adamantyl chloroglyoxylate (I) in PhNO2 at 105° is .apprx.40,000 times slower than the analogous decomposition of 1-adamantyl chloroformate (II). In C6H6 at 105°, I formed 13% 1-phenyladamantane. Decomposition reactions of I may be homolytic. I underwent a rapid methanolysis to give the mixed oxalate ester. II gave mixed carbonate esters in the presence of alkoxide or upon extensive dilution of the alc. with C6H6.

IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with alcs.)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 155 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:509891 CAPLUS

DOCUMENT NUMBER: 75:109891

ORIGINAL REFERENCE NO.: 75:17351a,17354a

TITLE: Substitution reactions of bridgehead derivatives of

adamantane

AUTHOR(S): Kevill, Dennis N.; Weitl, Frederick L.; Sister

Virginia M. Horvath

CORPORATE SOURCE: Dep. Chem., North. Illinois Univ., DeKalb, IL, USA

SOURCE: Preprints - American Chemical Society, Division of

Petroleum Chemistry (1970), 15(2), B66-B70

CODEN: ACPCAT; ISSN: 0569-3799

DOCUMENT TYPE: Journal LANGUAGE: English

AB In addition to reactions proceeding by conventional ionization mechanisms, nucleophilic substitution reactions considered include the decomposition of 1-adamantyl chloroformate in inert aprotic solvents, the competing solvolysis-decomposition of 1-adamantyl chloroformate in both protic and aprotic solvents, and the electrophilically assisted reactions of 1-adamantyl halides with alc. AgNO3 and silver perchlorate. The thermal reactions of 1-adamantyl chloroglyoxalate are discussed.

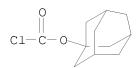
IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent)
 (solvolysis of)

(SOLVOLYSIS OI

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 156 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:141834 CAPLUS

DOCUMENT NUMBER: 74:141834

ORIGINAL REFERENCE NO.: 74:22923a,22926a

TITLE: Antibiotic  $7-\alpha$ -aminoacyl cephalosporins

INVENTOR(S): Morin, Robert B. PATENT ASSIGNEE(S): Eli Lilly and Co. SOURCE: U.S., 7 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

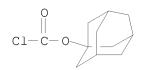
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3560489	A	19710202	US 1966-571966	19660812
PRIORITY APPLN. INFO.:			US 1966-571966 A	19660812
the state of the s				

AB The title compds. were prepared by the acylation of 7-amino-cephalosporanic acid (I). Thus, N-carbobenzoxy-D-phenylglycine in dry THF was treated with Et3N and ClCO2Bu-iso. I and Et3N in THF and H2O was added to the mixture to give 7-(N-carbobenzoxy-D- $\alpha$ -aminophenylacetamido)cephalospor anic acid (II). H was bubbled into II and 5% Pd-C in 95% Et0H at room temperature to yield 7-(D- $\alpha$ -aminophenylacetamido)cephalosporanic acid. Other analogs were prepared by conventional acylation procedures.

IT 5854-52-4P

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 157 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:124417 CAPLUS

DOCUMENT NUMBER: 74:124417

ORIGINAL REFERENCE NO.: 74:20107a,20110a

TITLE: Competing solvolysis-decomposition of 1-adamantyl

chloroformate

AUTHOR(S): Kevill, Dennis N.; Weitl, Frederick L.

CORPORATE SOURCE: Dep. Chem., North. Illinois Univ., DeKalb, IL, USA

SOURCE: Tetrahedron Letters (1971), (9), 707-10

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB In alc. solns. I (X = O2CC1) undergoes 2 competing reactions: solvolysis with the formation of 1-adamantyl alkyl carbonates and decomposition to I carbonium ion (II), C1-, and C02. The decomposition is followed by the

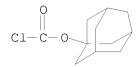
recombination of II with Cl- and by II reaction with the solvent giving an ether. The ethers are not formed from the carbonates. The activation entropies of I (X = O2CCl) solvolysis-decomposition are 16-20 entropy units more pos. than the solvolysis entropies of I (X = halide) in alcs., due to the loss of CO2 preceeding or concurrent with II formation and I ionization. In dioxane, EtOH, MeOH, or acetone the solvolysis amts. to 55.5-80% of I solvolysis-decomposition process.

IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent)
 (solvolysis of, mechanism of)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 158 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:12327 CAPLUS

DOCUMENT NUMBER: 74:12327 ORIGINAL REFERENCE NO.: 74:1993a,1996a

TITLE: Solvolysis of 1-adamantyl chloroformate and related

compounds in protic and aprotic media

AUTHOR(S): Weitl, Frederick L.

CORPORATE SOURCE: Northern Illinois Univ., DeKalb, IL, USA

SOURCE: (1969) 167 pp. Avail.: 70-3456

From: Diss. Abstr. Int. B 1970, 30(9), 4070

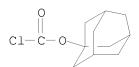
DOCUMENT TYPE: Dissertation LANGUAGE: English

AB Unavailable IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(solvolysis of) 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 159 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1969:58138 CAPLUS

DOCUMENT NUMBER: 70:58138

ORIGINAL REFERENCE NO.: 70:10937a,10940a

TITLE: 1-Adamantyl- and 1-adamantylmethyl carbonates of

testosterone

INVENTOR(S): Boswell, George A., Jr.

PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co.

SOURCE: S. African, 27 pp.

CODEN: SFXXAB

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ZA 6706588		19680308	ZA	
DE 1668559			DE	
FR 1579481			FR	
FR 7327			FR	
GB 1187611			GB	
GB 1187659			GB	
GB 1187660			GB	
US 3433813		19690318	US	19661129
PRIORITY APPLN. I	NFO.:		US	19661129
OTHER SOURCE(S):	MARPAI	70:58138		

Anabolic-androgenic agents were prepared 19-Nortestosterone (25.0 q.) in 100 AΒ cc. CH2Cl2 was shaken with 75 g. carbonyl fluoride under pressure 10 hrs. at 20  $\pm$  2° to give 23.4 g. 19-nortestosterone fluoroformate (I), m. 83-3.5°; [ $\alpha$ ]23D 34° (c 1.47, CHCl3). Similarly prepared was testosterone fluoroformate, m. 104-6°, [ $\alpha$ ]23D  $86^{\circ}$  (c 2.33, CHCl3). I (1.0 g.) and 10 g. 1-adamantanemethanol in 75 cc. benzene containing 0.5 cc. pyridine was refluxed under N 24 hrs. to give 0.646 g. 19-nortestosterone 1'-adamantylmethyl carbonate, m. 142.5-3.5°,  $[\alpha]$ 24D 42° (c 1.65, CHCl3). Similarly prepared was testosterone 1'-adamantylmethyl carbonate, m. 158-9°,  $[\alpha]24D$  79° (c 1.32, CHCl3). Similarly prepared, from 1-adamantyl chloroformate (m. 52-3°; from 1-adamantol and phosgene) was 19-nortestosterone 1'-adamantyl carbonate, m. 167°,  $[\alpha]24D$  35° (c 1.43, CHCl3). Phosgene was bubbled through 400 cc. Et20 2 hrs. at 0°, the solution diluted to 800 cc. with Et20, 100 g. adamantane-1-methanol added, and the mixture stirred 24 hrs. to give 1-adamantylmethyl chloroformate (II), m.  $54-5^{\circ}$ . Testosterone (13.0) g.) in benzene was refluxed with 12 g. II and 10 cc. pyridine 40 hrs. to give 15 g.  $17\beta$ -hydroxy-4-androsten-3-one 1'-adamantylmethyl carbonate, m. 157-8°. Ir and uv spectral data were given for the compds.

IT 21317-84-0P

RN 21317-84-0 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-ylmethyl ester (CA INDEX NAME)

L4 ANSWER 160 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1969:46538 CAPLUS

DOCUMENT NUMBER: 70:46538
ORIGINAL REFERENCE NO.: 70:8719a,8722a

TITLE: Kinetics and mechanism of the decomposition of

1-adamantyl chloroformate

AUTHOR(S): Kevill, Dennis N.; Weitl, Frederick L. CORPORATE SOURCE: Northern Illinois Univ., DeKalb, IL, USA

SOURCE: Journal of the American Chemical Society (1968),

90(23), 6416-20

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 70:46538

AB 1-Adamantyl chloroformate decompose in decane or in the molten phase to give exclusively 1-adamantyl chloride. In benzene a very small amount of acid formation occurs, 0.5% at 54.2°, and a 94% yield of 1-adamantyl chloride. Increased, but still small amts. of acid production accompany decomposition in nitrobenzene and mixts. of nitrobenzene with benzene. From a reaction with Ag hexafluoroantimonate in nitrobenzene, 1-(m-nitrophenyl) adamantane was isolated and characterized. At 54.2°, the relative rates of decomposition of 0.06M solns. in decane, benzene, and nitrobenzene are 1:1260:-205,000. In benzene, the entropy of a citation is -12.0 entropy units and slightly less neg. values are obtained in nitrobenzene and benzene-nitrobenzene mixts.; similar values were reported for SN1 solvolyses of 1-adamantyl halides. In nitrobenzene, tetra-n-butylammonium chloride modestly accelerates the decomposition, and the extent of acid formation decreases in a manner consistent with the rate of solvolysis in the absence of added chloride (3.0% at 15.0°) being equal to the rate of production of dissociated 1-adamantyl carbonium ions.

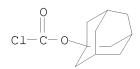
IT 5854-52-4

RL: PRP (Properties)

(dissociation of, kinetics of)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 161 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1968:451736 CAPLUS

DOCUMENT NUMBER: 69:51736
ORIGINAL REFERENCE NO.: 69:9643a,9646a

TITLE: 1-Adamantyl carbazates

INVENTOR(S): Gerzon, Koert; Krumkalns, Eriks V.

PATENT ASSIGNEE(S): Lilly, Eli and Co.

SOURCE: U.S., 4 pp. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

#### PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 3369041 A 19680213 US 1967-615356 19670213

PRIORITY APPLN. INFO.: US 1967-615356 A 19670213

GI For diagram(s), see printed CA Issue.

I, where R is Cl and n is 1 and 2, are treated with N2H4 to give the title compds. Thus, a mixture of 21 q. 1-bromoadamantane, 50 ml. 85% N2H4.H2O, and 150 ml. EtOH is refluxed 10 hrs. to give 12.6 g. 1-hydroxyadamantane (II), m. 220°. A mixture of 8 g. II, 6 g. pyridine, and 200 ml. ether is added in 1 hr. to a solution of 20 g. COC12 in 100 ml. C6H6 at  $20^{\circ}$  to give 1-adamantyl chloroformate (III), m.  $46-7^{\circ}$ . Similarly prepared are (m.p. given): 3,5-dimethyl-1-adamantyl chloroformate, 5-10°; 3-homoadamantyl chloroformate, <0°. A solution of 75 mg. III in 25 ml. C6H6 is saturated 1 hr. with NH3 gas to give 1-adamantyl carbamate I (n = 1, R = NH2, R1 = H), m.  $170-1^{\circ}$ . Similarly prepared are (m.p. given): I (n = 1, R = NHMe, R1 = H),  $127-9^{\circ}$ ; I (n = 1, R = adamantylamino, R1 = H),  $305-10^{\circ}$ . A solution of 2 g. III in 150 ml. C6H6 is slowly added to a solution of 2.5 g. N2H4 in 20 ml. tert-BuOH and the mixture is agitated 2 hrs. and worked up to give 1-adamantyl carbazate [I (n = 1, R = NHNH2, R1 = H)] (IV), m.  $141-2^{\circ}$ . Similarly prepared are (m.p. given): I (n = 1, R = NHNH2, R1 = Me),  $74-5^{\circ}$ ; V, -; I (n = 2, R = NHNH2, R1 = H),  $67^{\circ}$ . A mixture of 100 mg. IV, 1 ml. 2N HCl, and 2 ml. Me2CO is treated with 40 mg. NaNO2, the mixture is agitated until the NaNO2 is dissolved, 2 ml. water is added, and the water-insol. material obtained is extracted with hexane to give I (n = 1, R = N3, R1 = H). A solution

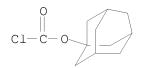
of Na D-phenylgycinate is prepared from 151 mg. D-phenylglycine, 2 ml. water, and 1.2 ml. N NaOH at 0°, a solution of 225 mg. III in a mixture of 2.5 ml. dioxane and 1 ml. ether is added in 40 min. as the mixture is kept alkaline (N NaOH), the mixture is extracted with ether, and the aqueous hase is

cooled to 0° and worked up to give 228 mg. N-(1-adamantyloxycarbonyl)-D-phenylglycine, m. 119-21°. Similarly prepared is I (n = 1, R = NHCH2CO2H, R1 = H), m. 141-2.5° (hexane).

IT 5854-52-4P 10144-56-6P

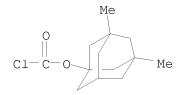
RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



RN 10144-56-6 CAPLUS

CN Carbonochloridic acid, 3,5-dimethyltricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



ANSWER 162 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:499665 CAPLUS

DOCUMENT NUMBER: 65:99665

ORIGINAL REFERENCE NO.: 65:18683h,18684a-b Adamantyl compounds TITLE: PATENT ASSIGNEE(S): Eli Lilly & Co.

SOURCE: 8 pp. DOCUMENT TYPE: Patent LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

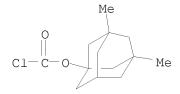
FAIENT NO. KIND DATE PATENT NO. APPLICATION NO. NL 6600403 19660722 NL 1966-403 19660112 PRIORITY APPLN. INFO.: US 19650121 New adamantyloxycarbonyl derivs. (I) of  $\alpha$ -amino acids were prepared I includes derivs. of naturally occurring  $\alpha$ -amino acids and is a suitable blocking group in synthesis of peptides, penicillins, or cephalosporins. This blocking group can be removed with F3CCO2H, anhydrous HCl, or by other known methods. Thus, to 20 g. COCl2 in 100 ml. anhydrous C6H6, a mixture of 8 g. 1-hydroxyadamantane, 6 g. pyridine, and 200 ml. ether was added dropwise at .apprx.20° during 1 hr. to give 1-adamantyl chloroformate, m. 46-7°. Similarly, 3,5-dimethyl-1-hydroxyadamantyl chloroformate, m. .apprx.5-10°, and 3-hydroxyhomoadamantyl chloroformate, m. .apprx.0°, were prepared To 151 mg. D-phenylglycine in 2 ml. H2O and 1.2 ml. N NaOH, a solution of 225 mg. 1-adamantyl chloroformate in 2.5 ml. dioxane and 1 ml. ether was added in 5 portions during 40 min. After addition of 1 ml. N NaOH, the reaction mixture was extracted with ether, acidified with 85% H3PO4 to pH 4.5, and with ether to give N-(1-adamantyloxycarbonyl)-D-phenylglycine, m. 119-20°. Also prepared was the glycine analog, m. 141-2.5°. 5854-52-4P, Formic acid, chloro-, 1-adamantyl ester 10144-56-6P, 1-Adamantanol, 3,5-dimethyl-, chloroformate 10144-78-2P, 1-Adamantanol, 3-methyl-, chloroformate RL: PREP (Preparation) (preparation of)

RN 5854-52-4 CAPLUS

Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME) CN

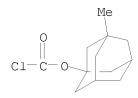
RN 10144-56-6 CAPLUS

CN Carbonochloridic acid, 3,5-dimethyltricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



RN 10144-78-2 CAPLUS

CN Carbonochloridic acid, 3-methyltricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L4 ANSWER 163 OF 163 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:104659 CAPLUS

DOCUMENT NUMBER: 64:104659

ORIGINAL REFERENCE NO.: 64:19757h,19758a

TITLE: Adamantyloxycarbonyl, a new blocking group. Preparation of 1-adamantyl chloroformate

AUTHOR(S): Haas, W. L.; Krumkalns, E. V.; Gerzon, K.

CORPORATE SOURCE: Lilly Res. Labs., Eli Lilly & Co., Indianapolis, IN SOURCE: Journal of the American Chemical Society (1966),

88(9), 1988-92

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal LANGUAGE: English

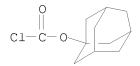
OTHER SOURCE(S): CASREACT 64:104659

AB 1-Adamantyl chloroformate was prepared from 1-adamantanol and COCl2. The chloroformate was allowed to react with amino acids to give the corresponding 1-adamantyloxycarbonyl derivs. Several of them could be obtained in crystalline form, while the corresponding tert-butyloxycarbonyl derivs. have either not been reported or have been described as oils or amorphous solids. The adamantyloxycarbonylamino acids are cleaved by acid-catalyzed solvolysis with CF3CO2H to yield the free amino acids. Adamantyl chloroformate forms mixed carbonic-carboxylic anhydrides with

 ${\tt Et3N}$  salts of N-protected amino acids which give peptide derivs. on reaction with amino acid esters.

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



=> log h
COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

CA SUBSCRIBER PRICE

SINCE FILE TOTAL
ENTRY SESSION
-129.60

-129.60

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 15:47:21 ON 19 FEB 2008

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAJRK1626

# PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \* \* SESSION RESUMED IN FILE 'CAPLUS' AT 16:49:01 ON 19 FEB 2008 FILE 'CAPLUS' ENTERED AT 16:49:01 ON 19 FEB 2008 COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY 887.61	SESSION 1066.18
FOLL ESTIMATED COST	007.01	1000.10
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-129.60	-129.60
=> file req		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	887.61	1066.18

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL
ENTRY SESSION
-129.60 -129.60

CA SUBSCRIBER PRICE

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http://www.cas.org/support/stngen/stndoc/properties.html

=>

Uploading C:\Program Files\Stnexp\Queries\10540547\Struc 2.str



chain nodes :
11 12 13 14
ring nodes :
1 2 3 4 5 6 7 8 9 10
chain bonds :
5-11 11-12 12-13 13-14
ring bonds :

1-2 1-6 2-3 2-7 3-4 4-5 4-10 5-6 6-9 7-8 8-9 8-10

exact/norm bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10 \quad 11-12 \quad 12-13$ 

exact bonds : 5-11 13-14

Match level :

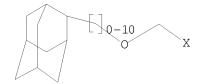
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS 12:CLASS 13:CLASS 14:CLASS

L5 STRUCTURE UPLOADED

=> d

L5 HAS NO ANSWERS

L5 STR



Structure attributes must be viewed using STN Express query preparation.

=> 15

SAMPLE SEARCH INITIATED 16:49:24 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 452 TO ITERATE

100.0% PROCESSED 452 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 7765 TO 10315 PROJECTED ANSWERS: 0 TO 0

L6 0 SEA SSS SAM L5

=> 15 full

FULL SEARCH INITIATED 16:49:27 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 9116 TO ITERATE

100.0% PROCESSED 9116 ITERATIONS 14 ANSWERS

SEARCH TIME: 00.00.01

L7 14 SEA SSS FUL L5

=> file caplus

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
178.36
1244.54

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE 0.00 -129.60

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FILE COVERS 1907 - 19 Feb 2008 VOL 148 ISS 8 FILE LAST UPDATED: 18 Feb 2008 (20080218/ED)

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http://www.cas.org/infopolicy.html

=> 17

L8 68 L7

=> file reg

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.48 1245.02

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL FILE TOTAL SESSION SES

CA SUBSCRIBER PRICE ENTRY SESSION 0.00 -129.60

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=>

Uploading C:\Program Files\Stnexp\Queries\10540547\Struc 3.str





chain nodes :
11 12 13 14 15
ring nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

5-11 11-12 11-15 12-13 13-14

ring bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10$ 

exact/norm bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10 \quad 11-12 \quad 11-15 \quad 12-13$ 

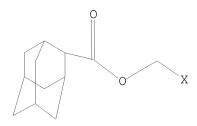
exact bonds : 5-11 13-14

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS

## L9 STRUCTURE UPLOADED

=> d L9 HAS NO ANSWERS L9 STR



Structure attributes must be viewed using STN Express query preparation.

=> 19

SAMPLE SEARCH INITIATED 16:50:54 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 51 TO ITERATE

100.0% PROCESSED 51 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 592 TO 1448 PROJECTED ANSWERS: 0 TO 0

L10 0 SEA SSS SAM L9

=> 19 full

FULL SEARCH INITIATED 16:50:57 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1239 TO ITERATE

100.0% PROCESSED 1239 ITERATIONS 2 ANSWERS

SEARCH TIME: 00.00.01

L11 2 SEA SSS FUL L9

=> file reg

COST IN U.S. DOLLARS

SINCE FILE
ENTRY
SESSION
FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE
TOTAL

ENTRY SESSION
CA SUBSCRIBER PRICE 0.00 -129.60

FILE 'REGISTRY' ENTERED AT 16:51:00 ON 19 FEB 2008
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http://www.cas.org/support/stngen/stndoc/properties.html

=> 17 not 111

L12 12 L7 NOT L11

=> d ibib abs hitstr 1-12

- 'IBIB' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
- 'ABS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
- 'HITSTR' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

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Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG - RN

SAM - Index Name, MF, and structure - no RN FIDE - All substance data, except sequence data

IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data

SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used

SQD - Protein sequence data, includes RN

SQD3 - Same as SQD, but 3-letter amino acid codes are used SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties EPROP - Table of experimental properties

PROP - EPROP and CALC

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

ABS -- Abstract

APPS -- Application and Priority Information

BIB -- CA Accession Number, plus Bibliographic Data

CAN -- CA Accession Number

CBIB -- CA Accession Number, plus Bibliographic Data (compressed)

IND -- Index Data

IPC -- International Patent Classification

PATS -- PI, SO

STD -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels IBIB -- BIB, indented, with text labels

ISTD -- STD format, indented

OBIB ----- AN, plus Bibliographic Data (original) OIBIB ----- OBIB, indented with text labels

SBIB ----- BIB, no citations SIBIB ----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

<code>HELP DFIELDS -- To see a complete list of individual display fields. HELP FORMATS -- To see detailed descriptions of the predefined formats. ENTER DISPLAY FORMAT (IDE): ibib abs hitstr</code>

```
'IBIB' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'ABS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'HITSTR' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
```

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HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):ibib abs hitstr
'IBIB' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'ABS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
'HITSTR' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

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SQIDE - IDE, plus sequence data

SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used

SQD - Protein sequence data, includes RN

SQD3 - Same as SQD, but 3-letter amino acid codes are used

SQN - Protein sequence name information, includes RN

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The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields. HELP FORMATS -- To see detailed descriptions of the predefined formats. ENTER DISPLAY FORMAT (IDE):0
'0' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

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REG - RN

SAM - Index Name, MF, and structure - no RN FIDE - All substance data, except sequence data

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SQD - Protein sequence data, includes RN

SQD3 - Same as SQD, but 3-letter amino acid codes are used

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SBIB ----- BIB, no citations SIBIB ----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields. HELP FORMATS -- To see detailed descriptions of the predefined formats. ENTER DISPLAY FORMAT (IDE):exit 'EXIT' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

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SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used

SQD - Protein sequence data, includes RN

 $\ensuremath{\mathsf{SQD3}}$  – Same as  $\ensuremath{\mathsf{SQD}}$  , but 3-letter amino acid codes are used

SQN - Protein sequence name information, includes RN

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PROP - EPROP and CALC

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IABS -- ABS, indented, with text labels IBIB -- BIB, indented, with text labels

ISTD -- STD format, indented

OBIB ----- AN, plus Bibliographic Data (original) OIBIB ----- OBIB, indented with text labels

SBIB ----- BIB, no citations SIBIB ----- IBIB, no citations

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The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented,

with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields. HELP FORMATS -- To see detailed descriptions of the predefined formats. ENTER DISPLAY FORMAT (IDE): ENTER DISPLAY FORMAT (IDE):scan 'SCAN' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG - RN

SAM - Index Name, MF, and structure - no RN FIDE - All substance data, except sequence data

IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data

SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used

SQD - Protein sequence data, includes RN

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SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties EPROP - Table of experimental properties

PROP - EPROP and CALC

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ISTD -- STD format, indented

OBIB ----- AN, plus Bibliographic Data (original) OIBIB ----- OBIB, indented with text labels

SBIB ----- BIB, no citations SIBIB ----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL. The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

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L12	ANSWER 1 OF 1	.2 REGISTRY	COPYRIGHT	2008	ACS	on	STN
RN	1001199-75-2	REGISTRY					

- L12 ANSWER 2 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN RN 869726-28-3 REGISTRY
- L12 ANSWER 3 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN RN 869726-26-1 REGISTRY
- L12 ANSWER 4 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN RN 720682-49-5 REGISTRY
- L12 ANSWER 5 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN RN 470701-80-5 REGISTRY
- L12 ANSWER 6 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN RN 177609-29-9 REGISTRY
- L12 ANSWER 7 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN RN 174972-29-3 REGISTRY
- L12 ANSWER 8 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN RN 174972-28-2 REGISTRY
- L12 ANSWER 9 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN RN 163798-91-2 REGISTRY
- L12 ANSWER 10 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN RN 97042-08-5 REGISTRY
- L12 ANSWER 11 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN RN 66258-27-3 REGISTRY
- L12 ANSWER 12 OF 12 REGISTRY COPYRIGHT 2008 ACS on STN RN 53120-53-9 REGISTRY

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68 L7 1 L11

L13 67 L7 NOT L11

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L13 ANSWER 1 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:39211 CAPLUS

DOCUMENT NUMBER: 148:145183

TITLE: Polymerizable ester compounds, polymers for resist

compositions with good sensitivity and resolution Watanabe, Takeru; Kinsho, Takeshi; Haseqawa, Koji;

INVENTOR(S): Watanabe, Takeru; Kinsho, Takeshi; Hased Tachibana, Seiichiro; Ohashi, Masaki

PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan

SOURCE: U.S. Pat. Appl. Publ., 55pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2008008962	A1	20080110	US 2007-822444		20070705
JP 2008013662	A	20080124	JP 2006-186297		20060706
KR 2008005105	A	20080110	KR 2007-67507		20070705
PRIORITY APPLN. INFO.:			JP 2006-186297	Α	20060706
GT					

III

AΒ The present invention relates to polymerizable ester compds. I, II, III, and IV which undergo no acid-induced decomposition by  $\beta$ -elimination, wherein A1 = polymerizable functional group having a carbon-carbon double bond: R1 = H or C(R5)3; R2, R3 = alkyl; R4 = H or alkyl; R5 = monovalent hydrocarbon; X = alkylene; Y = methylene, ethylene or isopropylidene; Z = alkylene; and n = 1 or 2. Thus, 128 g 1-methylcyclohexylmethanol and 36 g paraformaldehyde were reacted and further reacted with methacrylic acid to give 1-methylcyclohexylmethyl methacrylate, 13.9 g of which was polymerized with 10.4 g 3-hydroxy-1-adamantyl methacrylate and 15.7 g 3-oxo-2-oxatricyclo[4.2.1.04,8]nonan-9-yl methacrylate in the presence of 2,2-azobis(2-methylpropanoate) at 80° for 6 h to give a copolymer with Mw 9200 and polydispersity 2.10, 80 parts of which was mixed with triphenylsulfonium nonafluorobutanesulfonate 4.4, propylene glycol monomethyl ether acetate 560, cyclohexanone 240, and s sensitivity regulator, spin-coated onto an antireflective coating-coated silicon wafer, baked at 110° for 1 min, irradiated with an excimer laser, baked at 115° for 60 s, developed, and washed to give a pattern, showing maximum resolution 70 nm and proximity bias 42 nm.

IT 1001199-75-2P

RL: IMF (Industrial manufacture); PRPH (Prophetic); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(intermediate in monomer preparation; preparation of polymerizable ester compds.,  $\$ 

polymers for resist compns. with good sensitivity and resolution)

RN 1001199-75-2 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-[(chloromethoxy)methyl]-2-methyl- (CA INDEX NAME)

C1CH2-O-CH2

L13 ANSWER 2 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1469801 CAPLUS

DOCUMENT NUMBER: 148:109068

TITLE: Low-molecular-weight compound for positive resist

composition and method for forming resist pattern

INVENTOR(S): Shiono, Daiju; Hirayama, Taku; Hada, Hideo

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

PCT Int. Appl., 59pp. SOURCE: CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	TENT	NO.			KIN	D	DATE			APPL	ICAT	ION I	NO.		D.	ATE	
WC	2007	1484	 56		A1	_	2007	1227	•	WO 2	007-	JP55	 661		2	0070	320
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		CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,
		GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	KG,	KM,	KN,
		KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	MG,	MK,	MN,
		MW,	MX,	MY,	MZ,	NA,	NG,	NΙ,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,
		RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW							
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								MT,									
		ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG,	BW,
		GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,
		BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM									
JP	2008	0016	0 4		Α		2008	0110		JP 2	006-	1698	54		2	0060	620
PRIORIT GI	Y APP	LN.	INFO	.:					ı	JP 2	006-	1698	54		A 2	0060	620

## \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AΒ Compound I (A = trivalent aromatic cyclic group, alkyl group, alicyclic group, or trivalent organic group having an aromatic cyclic group or alicyclic group; R11-R17 = C1-10 alkyl or aromatic hydrocarbon group;  $q, j \ge 1$ ; k, q $\geq 0$ ;  $g + j + k + q \leq 5$ ;  $b \geq 1$ ;  $l, m \geq 0$ ; b + l $+ m \le 4$ ;  $c \ge 1$ ;  $n, o \ge 0$ ;  $c + n + o \le 4$ ; Z =YCO2R; Y = alkylene, divalent aromatic hydrocarbon group, alicyclic group, divalent organic group having aromatic hydrocarbon group or alicyclic group; R

acid-cleavable dissoln.-inhibiting group) is usable for resist compns. for

forming patterns with reduced line edge roughness (LER).

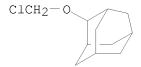
IT 177609-29-9, 2-Chloromethoxyadamantane

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of low-mol.-weight compds. for pos. resist compns. for forming resist patterns with reduced line edge roughness)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1059983 CAPLUS

DOCUMENT NUMBER: 147:374547

TITLE: Positive-working resist composition containing acrylic

polymer having acetal-type acid decomposable

solubility suppressing group and method of patterning

resist

INVENTOR(S): Kinoshita, Yohei; Furuya, Sanae; Iwai, Takeshi;

Haneda, Hideo

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 48pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007240718	A	20070920	JP 2006-60930	20060307
PRIORITY APPLN. INFO.:			JP 2006-60930	20060307

Disclosed is a pos.-working resist composition comprising a resin component capable of increasing alkali solubility upon interaction with an acid, and an acid generating agent, wherein the resin component is acrylic polymer having acetal-type acid decomposable solubility-suppressing group represented by [CH2-CR(COO-(CH2)c-Y1{(CH2)e-OZ}a{(CH2)d-OH}b)] (R = H, halo, lower alkyl, etc.; Y1 = aliphatic cyclyl; Z = acid-decomposable

solubility-suppressing group; a = 1-3; b = 0-2; a + b = 1-3; and c, d, and e = 0-3).

IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of acrylic resin component having having acetal-type acid decomposable solubility-suppressing group)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH2-O

L13 ANSWER 4 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:935060 CAPLUS

DOCUMENT NUMBER: 147:288278

TITLE: Preparation of adamantane based molecular glass

photoresists for sub-200 nm immersion lithography

INVENTOR(S): Tanaka, Shinji; Ober, Christopher K.

PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., USA; Idemitsu Kosan

Co., Ltd.

SOURCE: PCT Int. Appl., 41pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DAT	E APPLI	CATION NO.	DATE
WO 2007094784	A1 200	70823 WO 20	06-US5378	20060216
W: AE, AG, AL,	AM, AT, AU	, AZ, BA, BB,	BG, BR, BW, BY,	BZ, CA, CH,
CN, CO, CR,	CU, CZ, DE	, DK, DM, DZ,	EC, EE, EG, ES,	FI, GB, GD,
GE, GH, GM,	HR, HU, ID	, IL, IN, IS,	JP, KE, KG, KM,	KN, KP, KR,
KZ, LC, LK,	LR, LS, LT	, LU, LV, LY,	MA, MD, MG, MK,	MN, MW, MX,
MZ, NA, NG,	NI, NO, NZ	, OM, PG, PH,	PL, PT, RO, RU,	SC, SD, SE,
SG, SK, SL,	SM, SY, TJ	, TM, TN, TR,	TT, TZ, UA, UG,	US, UZ, VC,
VN, YU, ZA,	ZM, ZW			
RW: AT, BE, BG,	CH, CY, CZ	, DE, DK, EE,	ES, FI, FR, GB,	GR, HU, IE,
IS, IT, LT,	LU, LV, MC	, NL, PL, PT,	RO, SE, SI, SK,	TR, BF, BJ,
CF, CG, CI,	CM, GA, GN	, GQ, GW, ML,	MR, NE, SN, TD,	TG, BW, GH,
GM, KE, LS,	MW, MZ, NA	, SD, SL, SZ,	TZ, UG, ZM, ZW,	AM, AZ, BY,
KG, KZ, MD,	RU, TJ, TM			

PRIORITY APPLN. INFO.:

WO 2006-US5378 20060216

AB Disclosed are glass photoresists generated from adamantane derivs. containing acetal and/or ester moieties as novel high-performance photoresist materials. Some of the disclosed adamantane-based glass resists have a tripodal structure and other disclosed adamantane-based glass resists include one or more cholic groups. The disclosed adamantane derivs. can be synthesized from starting materials which are com. available. By way of example only, one of many disclosed amorphous glass photoresists has the following structure: GR-5 Adamantane-1,3,5-triyltris(oxymethylene) tricholate.

IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of adamantane based mol. glass photoresist for immersion
 lithog.)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH2-O

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:768324 CAPLUS

DOCUMENT NUMBER: 147:277005

TITLE: Rate and product studies with 2-adamantyl

fluoroformate under solvolytic conditions

AUTHOR(S): Kyong, Jin Burm; Rhu, Chan Joo; Kim, Yong-Gun; Kevill,

Dennis N.

CORPORATE SOURCE: Department of Chemistry and Applied Chemistry, Hanyang

University, Gyeonggi-do, 426-791, S. Korea

SOURCE: Journal of Physical Organic Chemistry (2007), 20(7),

525-531

CODEN: JPOCEE; ISSN: 0894-3230

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB The specific rates of solvolysis of 2-adamantyl fluoroformate have been measured at 25.0 °C in 20 pure and binary solvents. These are well correlated using the extended Grunwald-Winstein equation, with incorporation of the NT solvent nucleophilicity scale and the YCl solvent ionizing power scale. The sensitivities (l = 2.15  $\pm$  0.17 and m = 0.95  $\pm$  0.07) toward the changes in solvent nucleophilicity and solvent ionizing power, and the kF/kCl values are very similar to those previously observed for solvolyses of n-octyl fluoroformate, consistent with the addition step of an addition-elimination pathway being rate-determining For aqueous

measurement of the product ratio allowed selectivity values (S) to be determined The results are compared with those reported earlier for 2-adamantyl chloroformate and mechanistic conclusions are drawn.

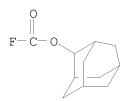
IT 163798-91-2, 2-Adamantyl fluoroformate

RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(rate and product studies with 2-adamantyl fluoroformate under solvolytic conditions)

RN 163798-91-2 CAPLUS

CN Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS

## RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:350618 CAPLUS

DOCUMENT NUMBER: 146:368733

TITLE: Resist compounds, their production method, positive

resist compositions and method for forming resist

patterns

INVENTOR(S): Shiono, Daiju; Dazai, Takahiro; Hirayama, Taku; Kasai,

Kohei; Hada, Hideo

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 81pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

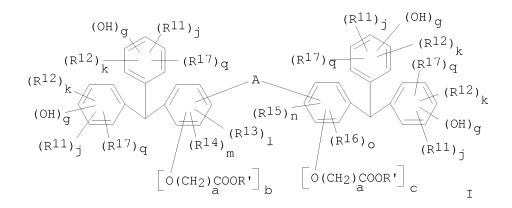
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

Ι	PATE	I TNI	. O <i>l</i>			KIN	D	DATE			APP	LICAT				D	ATE	
-	MO 2	2007	 0347:	 19		A1	_	2007	0329		WO	2006-				2	0060	 913
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			KG,	KΖ,	MD,	RU,	ТJ,	$^{\mathrm{TM}}$										
				77				2007				2005-					0051	
	JP 2	2008	0192	35		А		2008	0131		JΡ	2006-	2399	82		2	0060	905
PRIOR:	ΙΤΥ	APP1	LN.	INFO	.:						JΡ	2005-	2717	60		A 2	0050	920
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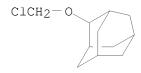
OTHER SOURCE(S): MARPAT 146:368733

GΙ



AB The resist compns. contain compds. I (A = Q; CH2, alicyclic group; R' = H, acid-cleavable dissoln. inhibiting group, where  $\geq 1$  of R' being an acid-cleavable dissoln. inhibiting group; R11-R19 = C1-10 alkyl or an aromatic hydrocarbon group and may include a heteroatom in the structure; g,  $j \geq 1$ ; k,  $q \geq 0$ ;  $g + j + k + q \leq 5$ ; a = 1-3;  $b \geq 1$ ; l,  $m \geq 0$ ;  $b + l + m \leq 4$ ;  $c \geq 1$ ; n, o  $\geq 0$ ;  $c + n + o \leq 4$ ; r, y,  $z \geq 0$ ;  $r + y + z \leq 4$ ). The resist compns. can form high-resol. resist patterns with improved line edge roughness (LER) by electron beam lithog. and extreme UV (EUV) lithog.

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:93733 CAPLUS

DOCUMENT NUMBER: 147:344702

TITLE: Thermolysis of polymethacrylates for 193 nm resist AUTHOR(S): Ogata, Toshiyuki; Kasai, Kohei; Matsumaru, Shogo; Takahashi, Motoki; Hada, Hideo; Shirai, Masamitsu

CORPORATE SOURCE: Tokyo Ohka Kogyo Co., Ltd., 1590 Tabata,

Samukawa-machi, Koza-gun, Kanagawa, 253-0114, Japan SOURCE: Journal of Photopolymer Science and Technology (2006),

19(6), 705-708

CODEN: JSTEEW; ISSN: 0914-9244

PUBLISHER: Technical Association of Photopolymers, Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

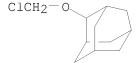
Thermal desorption spectroscopic results of thermal degradation of 2-adamantyloxymethyl methacrylate- $\gamma$ -butyrolactone methacrylate copolymer and 2-methyl-2-adamantyl methacrylate- $\gamma$ -butyrolactone methacrylate copolymer films showed the thermal stability of each protecting group such as 2-adamantyl oxymethyl ester and 2-methyl-2-adamantyl ester, and is in good agreement with TGA results. The stereoregularity of these polymers affected thermal degradation process (deesterification and dehydration) of the polymer film.

IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with methacrylic acid)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 8 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1228843 CAPLUS

DOCUMENT NUMBER: 145:513854

TITLE: Positive resist composition and method of forming

resist pattern

INVENTOR(S): Kinoshita, Yohei; Irie, Makiko; Ohkubo, Waki;

Nakagawa, Yusuke; Hidesaka, Shinichi

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 49pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT	NO.			KIN	D	DATE			APPL	ICAT	ION 1	NO.		D.	ATE	
WO	2006	1234	 87		A1	_	2006	1123	,	WO 2	006-	 JP30	7486		2	0060	407
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		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	KM,	KN,	KP,	KR,	KΖ,
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		SK,	SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,
		YU,	ZA,	ZM,	ZW												
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		GM,	KΕ,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,
		KG,	KΖ,	MD,	RU,	ТJ,	TM										
JΡ	2006	3231	81		Α		2006	1130	1	JP 2	005-	1468	59		2	0050	519

PRIORITY APPLN. INFO.:

JP 2005-146859 A 20050519

GT

$$\begin{array}{c|c} & & & \\ \hline & CH_2 - C \\ \hline & & \\ \hline & \\ \hline & & \\ \hline & & \\ \hline & \\ \hline & & \\ \hline$$

The resist composition can form a resist pattern of a satisfactory shape. AB resist composition is obtained by dissolving in an organic solvent a resin ingredient (A) whose alkali solubility increases by the action of an acid and an acid generator ingredient (B) which generates an acid upon irradiation with a radiation, wherein the resin ingredient (A) comprises a copolymer bearing a constituent unit having an acetal-type protective group, a constituent unit I (R = H, F, lower alkyl, lower fluoroalkyl; R' = H, lower alkyl, C1-5 alkoxy; m = 0, 1) derived from an acrylic ester having a lactone-containing polycyclic group, and a constituent unit derived from an acrylic ester having a polar-group-containing aliphatic hydrocarbon group.

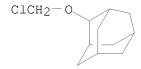
ΙT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(pos.-working resist compns. and method for resist pattern formation)

177609-29-9 CAPLUS RN

Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME) CN



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 9 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

2006:1226563 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 145:513852

TITLE: Positive-working resist composition and method for

resist pattern formation

Kinoshita, Yohei; Ohkubo, Waki; Nakagawa, Yusuke; INVENTOR(S):

> Hidesaka, Shinichi; Irie, Makiko Tokyo Ohka Kogyo Co., Ltd., Japan

PATENT ASSIGNEE(S): SOURCE: PCT Int. Appl., 53pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PA'	TENT	NO.			KIN	D	DATE			APP	LICAT	ION	NO.		D	ATE	
WO	2006	 1234	 96		A1	_	2006	1123		WO	2006-	 JP30	 8124		2	0060	418
	W:	ΑE,	AG,	AL,	ΑM,	ΑT,	AU,	AZ,	BA,	BB	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS	KE,	KG,	KM,	KN,	KΡ,	KR,	KΖ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA	MD,	MG,	MK,	MN,	MW,	MX,	MΖ,
		NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL	, PT,	RO,	RU,	SC,	SD,	SE,	SG,
		SK,	SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	ΤT	TZ,	UA,	UG,	US,	UZ,	VC,	VN,
		YU,	ZA,	ZM,	ZW												
	RW:	ΑT,	BE,	ВG,	CH,	CY,	CZ,	DE,	DK,	EE	E, ES,	FΙ,	FR,	GB,	GR,	HU,	IE,
		IS,	ΙΤ,	LT,	LU,	LV,	MC,	NL,	PL,	PΤ	, RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML	, MR,	NE,	SN,	TD,	TG,	BW,	GH,
		GM,	KΕ,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ	, TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KZ,	MD,	RU,	ΤJ,	TM										
JP	2006	3229	89		А		2006	1130		JΡ	2005-	1439	69		2	0050	517
EP	1882 R:				A1		2008	0130		EP	2006-	7320	52		2	0060	418
KR			0.8		Δ		2007	1217		KR	2007-	7271	26		2	0071	121
PRIORIT								,			2005-		_			0050	
			0	- •						-	2006-					0060	-
OTHER S	OURCE	(S):			MAR	PAT	145:	5138	52		_ 0 0 0				2		

Ι

AB This invention provides a pos.-working resist composition containing a resin component (A) and an acid generating agent component (B), which, upon a change in exposure, causes no significant variation in pattern size, and a method for resist pattern formation using this resist composition Component (A) comprises a polymer comprising constitutional units containing an acetal-type protective group, acrylic ester-derived constitutional units containing a lactone-containing cyclic group, and acrylic ester-derived constitutional units containing a polar group-containing aliphatic hydrocarbon group.

Component (B) comprises an onium salt-type acid generating agent having a cation part I [R11 = alkyl, alkoxy, halo, hydroxy; R12, R13 = (un)substituted aryl or alkyl; n' = 1-3].

IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent) (pos.-working resist compns. and method for resist pattern formation)

177609-29-9 CAPLUS RN

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH2-0

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 10 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

2006:845377 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 145:281061

TITLE: Positive resist composition and method of forming

resist pattern

Kinoshita, Yohei; Hirano, Isao INVENTOR(S): PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

PCT Int. Appl., 63pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT	NO.			KIN	D	DATE			APPL	ICAT	ION 1	NO.		D.	ATE	
	WO 2006	 08786	 65		A1	_	 2006	0824	,	WO 2	005-i	JP22	 878		2	0051	213
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	KM,	KN,	KP,	KR,	KΖ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,
		NA,	NG,	NΙ,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,
		SK,	SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,
		YU,	ZA,	ZM,	ZW												
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,
		IS,	ΙΤ,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG,	BW,	GH,
		GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	AZ,	BY,
		KG,	KΖ,	MD,	RU,	ΤJ,	TM										
	JP 2006	2271	60		Α		2006	0831		JP 2	005-	3894	4		2	0050	216
PRIO:	RITY APP	LN.	INFO	.:						JP 2	005-	3894	4	i	A 2	0050	216
OTHE:	R SOURCE	(S):			MAR	PAT	145:	2810	61								
CT																	

OT. GΙ

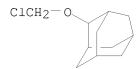
AB The invention relates to a pos. resist composition which comprises a resin ingredient (A) which comes to have enhanced alkali solubility by the action of an acid and an acid generator ingredient (B) which generates an acid upon irradiation with a radiation, wherein the ingredient (A) comprises a structural unit (a1) represented by the general formula I or II, a structural unit (a2) derived from an acrylic ester having a lactone-containing monocyclic or polycyclic group, and a structural unit (a3) which is a structural unit other than the structural units (a1) and (a2) and is derived from an acrylic ester which contains a non-acid-dissociable dissoln.—inhibitive group having an alicyclic group and contains no polar groups, and the ingredient (B) comprises an onium salt (B1) having an anion moiety represented by the formula R41-S03 -.

IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (resin in pos. resist composition)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 11 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:734536 CAPLUS

DOCUMENT NUMBER: 145:177268

TITLE: Positive resist composition and method for forming

resist pattern Kinoshita, Yohei

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

INVENTOR(S):

PA	TENT	NO.			KIN	D	DATE				ICAT				D.	ATE	
WO	2006	 0777	 05		A1	_	2006	0727							2	0051	216
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
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		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	KM,	KN,	KP,	KR,	KΖ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,
		NA,	NG,	NΙ,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,
		SK,	SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,
		YU,	ZA,	ZM,	ZW												
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,
		IS,	ΙT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG,	BW,	GH,
		GM,	ΚE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,
		KG,	KΖ,	MD,	RU,	ТJ,	TM										
JP	2006	2012	39		A		2006	0803		JP 2	005-	1005	1		2	0050	118
JP	2006	2014	02		Α		2006	0803		JP 2	005-	1205	3		2	0050	119
PRIORIT	Y APP	LN.	INFO	.:						JP 2	005-	1005	1		A 2	0050	118
										JP 2	005-	1205	3		A 2	0050	119
OTHER S GI	OURCE	(S):			MAR:	PAT	145:	1772	68								

## \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Disclosed is a pos. resist composition having high resolution which enables to improve DOF. This composition contains a resin component (A) whose alkali solubility is increased by the action of an acid and an acid generator component (B) which generates an acid when exposed to light. The resin component (A) has at least one constitutional unit (al) selected from those represented by the general formula I and the general formula II, and the acid generator component (B) is composed of an onium salt acid generator (B1) having a cation component represented by the general formula III or an onium salt acid generator (B4) having an anion component represented by the general formula IV or -N(-SO2-Y")(-SO2-Z"). In the formulas below, Y represents an alicyclic group; n represents 0 or an integer of 1-3; m represents 0 or 1; R represents a hydrogen atom, a lower alkyl group, a fluorine atom or a fluorinated lower alkyl group; R1 and R2 resp. represent a hydrogen atom or a lower alkyl group; R11 represents an alkyl group, an alkoxy group, a halogen atom or a hydroxyl group; R12 and

R13 resp. represent an aryl group of an alkyl group; and n' represents 0 or an integer of 1-3; X" represents F-substituted C2-6 alkylene; Y" and Z" represent F-substituted C1-10 alkyl.

IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (pos. resist composition)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH2-O

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 12 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:601730 CAPLUS

DOCUMENT NUMBER: 145:92960

TITLE: Polymer compound, positive resist composition and

method for forming resist pattern

INVENTOR(S): Kinoshita, Yohei; Kurimoto, Yuko; Iwai, Takeshi

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATEN	T NO.			KIN	D	DATE			APPL	ICAT	ION I	NO.		D	ATE	
	WO 20	 06064	 626		 A1	_	2006	0622		 WO 2	005-	 JP21	 146		2	 0051	 117
	W	: AE	, AG,	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	ВG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN	, co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE	, GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	KM,	KN,	KP,	KR,	KΖ,
		LC	, LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,
		NΑ	, NG,	NΙ,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,
		SK	, SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,
		JΥ	, ZA,	ZM,	ZW												
	R	W: AI	, BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,
		IS	, IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF	, CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG,	BW,	GH,
		GM	, KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,
		KG	, KZ,	MD,	RU,	ΤJ,	TM										
	JP 20	06169	319		А		2006	0629		JP 2	004-	3613	99		2	0041	214
	RITY A	PPLN.	INFC	.:						JP 2	004-	3613	99	1	A 2	0041	214
GI																	

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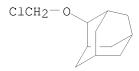
AB The disclosed polymer has constitutional units I and II (Y = alicyclic group; n = 0, 1-3; m = 0, 1; R = H, C1-5 alkyl, F, C1-5 fluoroalkyl; R1, R2 = H, C1-5 alkyl). The polymer may also contain acrylate units with lactone-containing mono- or poly-cyclic ring and or acrylate units with polar hydrocarbyl group which does not dissociate by an acid. The disclosed photoresists contains the above polymer and a photoacid generator. The resist shows high resolution and high pattern quality.

IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (esterification with methacrylic acid in preparation of polymer for photoresists)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 13 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:410214 CAPLUS

DOCUMENT NUMBER: 144:422710

TITLE: Photoacid generation type photoresist component with

acid-cleavable dissolution inhibiting groups

INVENTOR(S): Shiono, Daiju; Hirayama, Taku; Ogata, Toshiyuki; Hada,

Hideo

PATENT ASSIGNEE(S): Tokyo Ohka Koqyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

P.	ATE	ENT 1	7O.			KIN	D i	DATE				ICAT				D.	ATE	
M	 0 2	2006	 04638	83		A1	_	 2006	0504			005-				2	0050	930
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	KM,	KP,	KR,	KΖ,	LC,
			LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NA,
			NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,
			SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,
			ZA,	ZM,	ZW													
		RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,
			IS,	ΙT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	BJ,
			CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	${ m ML}$ ,	MR,	ΝE,	SN,	TD,	ΤG,	BW,	GH,
									SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,
						RU,												
												005-						
E.	P 1	806	-			A1		2007	0711		EP 2	005-	7882	89		2	0050	930
			BE,			_					^							
						А		2007	0824			007-	-	_			0070	
PRIORI	T. X	APP.	LN.	TNF.O	.:							004-					0041	-
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											_	005-					0050.	
												005-					0050	
		-									wo z	005-	7 L T 8	143	1	W . 2	0050	930

AB Disclosed is a resist composition containing a compound obtained by substituting a

part or all of hydrogen atoms in the phenolic hydroxyl groups of a polyvalent phenolic compound (a) which has two or more phenolic hydroxyl groups and a mol. weight of 300-2500 with at least one group selected from the group consisting of acid-cleavable dissoln. inhibiting groups represented by the general formulas  $-(\text{CH2})\,\text{n'CO2R1}$  or -CHR3OR2 below (wherein R1 and R2 independently represent a branched or cyclic alkyl group which may contain a heteroatom, R3 represents a hydrogen atom or a lower alkyl group, and n' represents an integer of 1-3).

IT 177609-29-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(reactant of photoacid generation type photoresist component with acid-cleavable dissoln. inhibiting groups)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

ClCH<sub>2</sub>-O

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 14 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

2006:366907 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 144:422694

TITLE: Positive photoresist composition for immersion exposure and method of forming resist pattern

INVENTOR(S): Ogata, Toshiyuki; Tsuji, Hiromitsu; Matsumaru, Syogo;

Hada, Hideo

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

PCT Int. Appl., 59 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	TENT				KIND DATE						ICAT							
					A1 20060420			1				20050930						
	W: AE, AG, AI		AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,		
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	ΚM,	KP,	KR,	KΖ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	
		NG,	NΙ,	NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	
		SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	YU,	
		ZA,	ZM,	ZW														
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	
		IS,	ΙΤ,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	${ m ML}$ ,	MR,	ΝE,	SN,	TD,	ΤG,	BW,	GH,	
		GM,	KE,	LS,	MW,	${ m MZ}$ ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,	
		KG,	KΖ,	MD,	RU,	ΤJ,	$^{\mathrm{TM}}$											
JP	JP 2006113140						2006	0427		JP 2	004 - 1	2979	45	20041012				
KR	KR 2007061862						2007	0614		KR 2	007-	7081	72	20070410				
PRIORIT	PRIORITY APPLN. INFO.:								ı	JP 2	004-	2979	45	A 20041012				
						1	WO 2	005-	JP18:	138	W 20050930							

The invention relates to a pos. resist composition for immersion exposure which AΒ comprises a resin ingredient (A) which comes to have enhanced alkali solubility by the action of an acid and an acid generator ingredient (B) which generates an acid upon exposure to light, characterized in that the resin ingredient (A) comprises a resin (A1) which has alkali-soluble groups (i) having a hydrogen atom and in which the hydrogen atom of part of the alkali-soluble groups (i) has been replaced with an acid-dissociable dissoln.-inhibitive group (I) represented by the following general formula -C(R1)(R2)-O-(-CH2)n-Z [wherein Z represents an alicyclic group; n is an integer of 0-3; and R1 and R2 each independently represents hydrogen or C1-5 alkyl]. Composition provides high resolution patterns of good profile. 177609-29-9P ΙT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(resin in pos. photoresist composition)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH2-0

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 15 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1354495 CAPLUS

144:97681 DOCUMENT NUMBER:

Monomers for polymer compound, positive resist TITLE:

composition and method for forming resist pattern

INVENTOR(S): Ogata, Toshiyuki; Matsumaru, Syogo; Hada, Hideo

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2

Patent DOCUMENT TYPE: LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION: DAMENIE NO

PA	TENT :	NO.			KIND DATE				APPL	ICAT		DATE					
WO	2005	A1 20051229			,	WO 2	005-	 JP11	20050616								
	W: AE, AG, AL,			AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
		GE,	GH,	GM,	HR,	ΗU,	ID,	IL,	IN,	IS,	ΚE,	KG,	ΚM,	KΡ,	KR,	KΖ,	LC,
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NG,
		NΙ,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,
		SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,
		ZM,	ZW														
	RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	IS,	ΙΤ,	LT,	LU,	MC,	NL,	PL,	PT,
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,
		MR,	NE,	SN,	TD,	ΤG											
JP	JP 2006001907						2006	0105	1	JP 2	004-	1822	99	20040621			
PRIORIT	RIORITY APPLN. INFO.:					JP 2004-182299									A 2	0040	621
OTHER S GI	OTHER SOURCE(S): GI					PAT	144:	9768:	1								

Page 205

AB Disclosed is a pos. resist composition with excellent resolution which enables to

form a good resist pattern even when there is used an acid generator which generates a weak acid. Such a pos. resist composition contains a polymer compound having a constitutional unit (a1) represented by the general formula I and an acid generator component (B) which generates an acid when exposed to light. In the formula, R1 represents a hydrogen atom or a lower alkyl group; R3 represents an alkyl group having 1-15 carbon atoms or an alicyclic group, and may have one or more substituents selected from the group consisting of ether bonds, hydroxyl group, carbonyl groups, ester groups and amino group; and n2 represents 0 or an integer of 1-3. 720682-49-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(compound, polymer compound, pos. resist composition and method for forming resist pattern)

RN 720682-49-5 CAPLUS

Ι

CN Tricyclo[3.3.1.13,7]decanone, 4-(chloromethoxy)- (9CI) (CA INDEX NAME)

ΙT

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 16 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1241028 CAPLUS

DOCUMENT NUMBER: 143:485833

TITLE: Adamantane derivative, method for producing same and

photosensitive material for photoresist

INVENTOR(S): Ito, Katsuki; Ono, Hidetoshi; Tanaka, Shinji;

Hatakeyama, Naoyoshi; Miyamoto, Shinji; Matsumoto,

Nobuaki

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	TENT	NO.			KIN	D	DATE		-	APPL	DATE						
WO	2005	 1110	 97		A1 20051124			-	wo 2	005-i		20050517					
	W:	W: AE, AG, AL,			AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KM,	KP,	KR,	KΖ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
		NG,	NΙ,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,
		SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,
		ZA,	ZM,	ZW													
	RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	ΜZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	IS,	ΙΤ,	LT,	LU,	MC,	NL,	PL,	PT,
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,
		MR,	NE,	SN,	TD,	ΤG											
PRIORIT	PRIORITY APPLN. INFO.:									JP 2	004-	1479	46		A 2	0040	518
OTHER SOURCE(S):					MAR:	PAT	143:	4858	33								

Disclosed is an adamantane derivative which is useful as a monomer for a functional resin such as a photosensitive resin that is used in the fields of photolithog. Also disclosed are a method for efficiently producing such an adamantane derivative and a photosensitive material for photoresists containing a polymer obtained from such an adamantane derivative Specifically disclosed is an adamantane derivative which is characterized by having a structure represented by the following general formula I wherein R1 represents a hydrogen atom, a Me group or a trifluoromethyl group; Y represents an alkyl group having 1-10 carbon atoms, a halogen atom or a hydroxyl group, or alternatively two Ys may combine together to form =0, and a plurality of Ys may be the same as or different from one another; k represents an integer of 0-15; and m represents 0 or 1. Also specifically disclosed are a method for producing an adamantane derivative represented by the above general formula (I) which is characterized by reacting a

GΙ

halomethyl adamantyl (methyl) ether with a (meth)acrylic acid or an acid anhydride thereof, and a photosensitive material for photoresists containing a polymer obtained from such an adamantane derivative

IT 869726-26-1 869726-28-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(adamantane derivative for photoresist composition)

RN 869726-26-1 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-[(chloromethoxy)methyl]- (CA INDEX NAME)

C1CH2-O-CH2

RN 869726-28-3 CAPLUS

CN Tricyclo[3.3.1.13,7]decanone, 4-[(chloromethoxy)methyl]- (9CI) (CA INDEX NAME)

C1CH<sub>2</sub>-O-CH<sub>2</sub>

IT 177609-29-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(adamantane derivative for photoresist composition)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

ClCH<sub>2</sub>-O

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 17 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:962319 CAPLUS

DOCUMENT NUMBER: 143:257069

TITLE: Polymer compound, photoresist composition containing

such polymer compound, and method for forming resist

pattern

INVENTOR(S): Ogata, Toshiyuki; Matsumaru, Syogo; Kinoshita, Yohei;

Hada, Hideo; Shiono, Daiju; Shimizu, Hiroaki; Kubota,

Naotaka

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 91 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

F	PAT	ENT I	NO.			KIND DATE					APF	PLICAT		DATE				
	vo	2005080473			A1 20050901			WO 2005-JP1228						20050128				
		W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	BA,	BE	3, BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ	z, EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	ΙL,	IN,	ΙS	KE,	KG,	KΡ,	KR,	KΖ,	LC,	LK,
												K, MN,						
			NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC	C, SD,	SE,	SG,	SK,	SL,	SY,	ТJ,
			TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ	z, vc,	VN,	YU,	ZA,	ZM,	ZW	
		RW:	BW,	GH,	GM,	KΕ,	LS,	MW,	MZ,	NA,	SI	), SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
			ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑI	C, BE,	BG,	CH,	CY,	CZ,	DE,	DK,
			EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	ΙS	S, IT,	LT,	LU,	MC,	NL,	PL,	PT,
			RO,	SE,	SI,	SK,	TR,	BF,	ΒJ,	CF,	CG	G, CI,	CM,	GΑ,	GN,	GQ,	G₩,	ML,
			,	,		TD,												
Ū	JΡ	2006	0969	65		A	A 20060413			JP 2004-316960						20041029		
E	ΞP	1717	261			A1		2006	1102	EP 2005-709454						2	0050	128
		R:	DE,	FR														
	CN	1918	217			А		2007	0221	1	СИ	2005-	8000	4964		2	0050	128
PRIORI	ΙΤΥ	APP:	LN.	INFO	.:						JΡ	2004-	4552	2	ì	A 2	0040	220
										1	JΡ	2004-	1345	85	Ž	A 2	0040	428
										1	JΡ	2004-	1794	75	i	A 2	0040	617
										1	JΡ	2004-	2524	74	Ž	A 2	0040	831
						1	JΡ	2004-	3169	60	Ž	A 2	0041	029				
										,	WO	2005-	JP12.	28	Ī	W 2	0050	128

AB Disclosed is a polymer compound which enables to obtain a highly sensitive photoresist composition which forms a fine pattern with excellent resolution and

good rectangular shape and is capable of obtaining good resist characteristics even when the acid generated by an acid generator is weak. Also disclosed are a photoresist composition using such a polymer compound and

method for forming a resist pattern using such a photoresist composition The
 photoresist composition and resist pattern-forming method use a polymer
compound

having an alkali-soluble group (i) which is at least one substituent selected from an alc. hydroxyl group, a carboxyl group and a phenolic hydroxyl group and protected by an acid-cleavable dissoln. inhibiting group (ii) represented by general formula -CH2-O-(-CH2)n-R1 wherein R1 represents an alicyclic group having 20 or less carbon atoms which may have an oxygen, nitrogen, sulfur or halogen atom; and n represents 0 or an integer of 1-5. 177609-29-9P 720682-49-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(polymer compound, photoresist composition containing such polymer compound, and

method for forming resist pattern)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

ΙT

C1CH<sub>2</sub>-O

RN 720682-49-5 CAPLUS

CN Tricyclo[3.3.1.13,7]decanone, 4-(chloromethoxy)- (9CI) (CA INDEX NAME)

C1CH2-O

PUBLISHER:

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 18 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:284341 CAPLUS

DOCUMENT NUMBER: 143:132933

TITLE: Application of the extended Grunwald-Winstein equation

to solvolyses of n-propyl chloroformate

AUTHOR(S): Kyong, Jin Burm; Won, Hoshik; Kevill, Dennis N. CORPORATE SOURCE: Department of Chemistry, Hanyang University,

Kyunggi-Do, 425-791, S. Korea

SOURCE: International Journal of Molecular Sciences (2005),

6(1-2), 87-96

CODEN: IJMCFK; ISSN: 1422-0067

URL: http://www.mdpi.org/ijms/papers/i6010087.pdf Molecular Diversity Preservation International

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

AB Application of the extended Grunwald-Winstein equation to solvolyses of Pr chloroformate in a variety of pure and binary solvents indicates an addition-elimination pathway in the majority of the solvents but an ionization pathway in the solvents of highest ionizing power and lowest nucleophilicity. For methanolysis, a solvent deuterium isotope effect of 2.17 is compatible with the incorporation of general-base catalysis into the substitution process. Activation parameters are consistent with the duality of mechanism. Very modest pos. salt effects are observed on adding chloride or bromide salts to the ethanolysis.

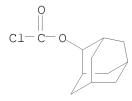
IT 53120-53-9, 2-Adamantyl chloroformate

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(application of the extended Grunwald-Winstein equation to the solvolysis of alkyl chloroformates)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 19 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:725585 CAPLUS

DOCUMENT NUMBER: 141:379887

TITLE: 5-(Tryptophylamino)-1,3-dioxoperhydropyrido[1,2-

c]pyrimidine-based cholecystokinin receptor antagonists: reversal of CCK1 receptor subtype

selectivity toward CCK2 receptors

AUTHOR(S): Munoz-Ruiz, Pilar; Garcia-Lopez, M. Teresa;

Cenarruzabeitia, Edurne; Del Rio, Joaquin; Dufresne, Marlene; Foucaud, Magali; Fourmy, Daniel; Herranz,

Rosario

CORPORATE SOURCE: Instituto de Quimica Medica, CSIC, Madrid, E-28006,

Spain

SOURCE: Journal of Medicinal Chemistry (2004), 47(21),

5318-5329

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:379887

GΙ

AB With the aim of reversing selectivity or antagonist/agonist functionality in the 5-(tryptophylamino)-1,3-dioxoperhydropyrido[1,2-c]pyrimidine-derived potent and highly selective CCK1 antagonists, a series of 4-benzyl and 4-Me derivs. were prepared Whereas the introduction of the benzyl group led, in all cases, to complete loss of the binding affinity, the incorporation of the Me group gave a different result depending on the stereochem. of the 1,3-dioxoperhydropyrido[1,2-c]pyrimidine scaffold.

Ι

Thus, the introduction of the Me group into the (4aS,5R)-diastereoisomers, giving a (4S)-configuration, produced a 3-fold increase in the CCK1 binding potency and selectivity. However, the same structural manipulation in the opposite (4aR,5S)-stereochem., leading to a (4R, 4aR, 5S)-configuration, produced reversal of the selectivity for CCK1 to the CCK2 receptors. The replacement of the Boc group at the tryptophan moiety by a 2-adamantyloxycarbonyl group also contributed to that reversal. The resulting compds. displayed moderate CCK2 antagonist activity in rat and human receptors, and a very small partial agonist effect on the production of inositol phosphate in COS-7 cells transfected with the wild-type human CCK2 receptor. An example compound thus prepared was [(1S)-1-(1H-indol-3-ylmethyl)-2-[(4S,4aR,5S)-octahydro-1,3-dioxo-2-(phenylmethyl)-1H-pyrido[1,2-c]pyrimidin-5-yl]amino]-2-oxoethyl]carbamic acid 1,1-dimethylethyl ester (I).

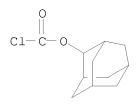
53120-53-9P, 2-Adamantyl chloroformate ΤТ

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of [(adamantyl)tryptophyl]amino]methyl(phenylmethyl)dioxoperhyd ropyrido[1,2-c]pyrimidine derivative using adamantyl chloroformate as synthetic intermediate)

53120-53-9 CAPLUS RN

Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME) CN



REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 20 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:565183 CAPLUS

141:107948 DOCUMENT NUMBER:

TITLE: Adamantane derivatives and process for producing them

INVENTOR(S): Tanaka, Shinji; Ono, Hidetoshi; Kodoi, Kouichi;

Hatakevama, Naovoshi

PATENT ASSIGNEE(S): Idemitsu Petrochemical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058675	A1	20040715	WO 2003-JP16258	20031218
W: KR, US				
RW: AT, BE, BG,	CH, CY	, CZ, DE, DK	, EE, ES, FI, FR, GB	, GR, HU, IE,

IT, LU, MC, NL, PT, RO, SE, SI, SK, TR

EP 1577285 20050921 EP 2003-780891 Α1 20031218 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK US 2006149073 A1 20060706 US 2005-540547 20051213 PRIORITY APPLN. INFO.: JP 2002-374659 A 20021225 WO 2003-JP16258 W 20031218 MARPAT 141:107948 OTHER SOURCE(S):

AB Compds. I and II (R1-R4 = H, halo, C1-10 alkyl, C1-10 haloalkyl; X = halo; Y = C1-10 alkyl, C1-10 haloalkyl, halo, heteroatom-containing group; m = 0-15; n = 0-10; wherein in I, the case where both of m and n are 0 and both of R3 and R4 are H is excluded; in I and II, two Y groups may form :O group), such as chloromethyl adamantylmethyl ether and chloromethyl 4-oxo-2-adamantyl ether, are prepared The adamantane derivs. are useful as modifiers for photoresist resins in the field of photolithog., dry-etching resistance improvers, intermediates for agricultural chems. and medicines, and other various industrial products.

II 720682-49-5P

RL: IMF (Industrial manufacture); PREP (Preparation) (preparation of adamantane derivs.)

RN 720682-49-5 CAPLUS

CN Tricyclo[3.3.1.13,7]decanone, 4-(chloromethoxy)- (9CI) (CA INDEX NAME)

L13 ANSWER 21 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:242747 CAPLUS

DOCUMENT NUMBER: 138:384966

TITLE: Solvolysis-Decomposition of 2-Adamantyl Chloroformate:

Evidence for Two Reaction Pathways

AUTHOR(S): Kyong, Jin Burm; Yoo, Jung-Suk; Kevill, Dennis N. CORPORATE SOURCE: Department of Chemistry, Hanyang University, Ansan,

Kyunggi-do, 425-791, S. Korea

SOURCE: Journal of Organic Chemistry (2003), 68(9), 3425-3432

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB Reaction of 2-adamantyl chloroformate under a variety of solvolytic conditions leads to 2-adamantyl chloride accompanied by solvolysis products, some with and some without retention of the CO2 unit. For example, in 100% ethanol, only 4.8% 2-adamantyl chloride is formed with the mixed carbonate (88%) being the dominant product, and in 100% 2,2,2-trifluoroethanol, the products are both formed with loss of CO2, 59% of the chloride and 41% of the ether. With exclusion of the specific rates in 100% and 90% ethanol and methanol, a good Grunwald-Winstein plot against YCl values (solvent ionizing power) is obtained, with a slope of 0.47 ± 0.03. The results are compared with those reported earlier for 1-adamantyl chloroformate and iso-Pr chloroformate and mechanistic conclusions are drawn.

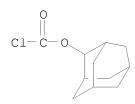
IT 53120-53-9, 2-Adamantyl Chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(solvolysis-decomposition of adamantyl chloroformate)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 22 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:793943 CAPLUS

DOCUMENT NUMBER: 137:317924

TITLE: Perfluoroalkylsulfonic acid compounds for photoresists

INVENTOR(S): Ferreira, Lawrence; Blakeney, Andrew J.; Spaziano, Gregory Dominic; Dimov, Ognian; Kocab, Thomas J.;

Hatfield, John P.

PATENT ASSIGNEE(S): Arch Specialty Chemicals, Inc., USA

SOURCE: PCT Int. Appl., 81 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA.	TENT	NO.			KIND		DATE			APF	PLI	CAT	ION I		DATE				
WO	2002	A1	A1 20021017				WO	20	02-0	20020405									
	W:	JP,	KR,	SG															
	RW:	ΑT,	BE,	CH,	CY,	DE.	DK,	ES,	FΙ,	FF	۲,	GΒ,	GR,	ΙE,	ΙT,	LU,	MC,	NL,	
		PT,	SE,	TR															
US	2002	1975	58		A1		2002	1226		US	20	02-3		2	0020	405			
US	6855	476			В2		2005	0215											
EP	1299	774			A1 20030409			EP 2002-725542							2	0020	405		
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GF	₹,	ΙT,	LI,	LU,	NL,	SE,	MC,	PT,	
		IE,	FΙ,	CY,	TR														
JP	2004	5195	20		T		2004	0702	JP 2002-579891						20020405				
TW	2759	05			В		2007	0311		TW	20	02-9	9110	6973		2	0020	408	
PRIORIT	PRIORITY APPLN. INFO.:									US	20	01 - 2	2816	52P		P 2	0010	405	
						WO	20	02-0	JS10	800		W 2	0020	405					

OTHER SOURCE(S): MARPAT 137:317924

AB The present invention relates to a photoacid compound that produce a fluorinated alkyl sulfonic acid having a short perfluoroalkyl chain attached to an ether linkage. The invention photoacid has general structure:  $R-O(CF2)\,nSO3X$  (n = 1-4; R = C1-C12 alkyl or alkenyl, araalkyl, aryl, bicycloalkyl, tricycloalkyl, H, alkyl sulfonic acid, perfluoroalkyl, general structure  $F((CF2)\,pO)\,m(CF2)\,q-;$  p = 1-4; m = 0-3; q = 1-4; etc.; X = organic cations and covalently bonded organic radicals). The present invention relates photoresist compn comprising such photoacid generator compound IT 470701-80-5

RL: TEM (Technical or engineered material use); USES (Uses) (photoacid for photoresists composition and photolithog.)

RN 470701-80-5 CAPLUS

CN Ethanesulfonic acid, 1,1,2,2-tetrafluoro-2-(tricyclo[3.3.1.13,7]dec-2-yloxy)-, 2-oxo-1,2-diphenylethyl ester (CA INDEX NAME)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 23 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:643335 CAPLUS

DOCUMENT NUMBER: 132:8706

TITLE: 5-(Tryptophyl)amino-1,3-dioxoperhydropyrido[1,2-

c]pyrimidine-Based Potent and Selective CCK1 Receptor

Antagonists: Structural Modifications at the

Tryptophan Domain

AUTHOR(S): Bartolome-Nebreda, Jose M.; Gomez-Monterrey, Isabel;

Garcia-Lopez, M. Teresa; Gonzalez-Muniz, Rosario;

Martin-Martinez, Mercedes; Ballaz, Santiago;

Cenarruzabeitia, Edurne; LaTorre, Miriam; Del Rio,

Joaquin; Herranz, Rosario

CORPORATE SOURCE: Instituto de Quimica Medica (CSIC), Madrid, E-28006,

Spain

SOURCE: Journal of Medicinal Chemistry (1999), 42(22),

4659-4668

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

Analogs of the previously reported potent and highly selective CCK1 receptor antagonist (4aS,5R)-2-benzyl-5-(N-Boc-tryptophyl)amino-1,3dioxoperhydropyrido-[1,2-c]pyrimidine (I) were prepared to explore the structural requirements at the Boc-tryptophan domain for CCK1 receptor affinity. Structural modifications of I involved the Trp side chain, its conformational freedom, the Boc group, and the carboxamide bond. Results of the CCK binding and in vitro functional activity evaluation showed three highly strict structural requirements: the type and orientation of the Trp side chain, the H-bonding acceptor carbonyl group of the carboxamide bond, and the presence of the Trp amino protection Boc. Replacement of this acid-labile group with 3,3-dimethylbutyryl or tert-butylaminocarbonyl conferred acid stability to several analogs which retained a high potency and selectivity in binding to CCK1 receptors, as well as an in vivo antagonist activity against the acute pancreatitis induced by caerulein in rats. Oral administration of these analogs also produced a lasting antagonism to the hypomotility induced by CCK-8 in mice, suggesting a good bioavailability and metabolic stability.

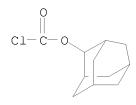
IT 53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of (tryptophyl)aminodioxoperhydropyrido[c]pyrimidine-based potent and selective CCK1 receptor antagonists in relation to structural modifications at tryptophan domain)

53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



RN

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 24 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:270546 CAPLUS

DOCUMENT NUMBER: 129:16374

TITLE: The use of heterocycles for the conformational restriction of biologically active peptoids

AUTHOR(S): Horwell, David C.; Lewthwaite, Russell A.; Pritchard,

Martyn C.; Ratcliffe, Giles S.; Rubin, J. Ronald

CORPORATE SOURCE: Parke-Davis Neurosci. Research Centre, Cambridge, CB2

Page 216

2QB, UK

SOURCE: Tetrahedron (1998), 54(18), 4591-4606

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 129:16374

AB A series of piperazinone ring systems have been synthesized as a means of evaluating the effect of conformational restriction on high affinity non-peptide NK1, NK3 and CCK-B receptor ligands. The synthesis of the targeted heterocycles is described along with a discussion of their affinities for their resp. receptor types.

IT 53120-53-9, 2-Adamantyl chloroformate

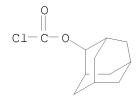
RL: RCT (Reactant); RACT (Reactant or reagent)

(use of heterocycles for conformational restriction of biol. active

peptoids)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 25 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:122836 CAPLUS

DOCUMENT NUMBER: 128:204834

TITLE: Synthesis of 5-membered ring-type compounds as

potential cholecystokinin receptor ligands

AUTHOR(S): Pentassuglia, Giorgio; Araldi, Gian Luca; Donati,

Daniele; Feriani, Aldo; Oliosi, Beatrice; Pasquarello,

Alessandra; Ursini, Antonella

CORPORATE SOURCE: Glaxo Wellcome S.p.A., Medicines Research Centre,

Verona, 37135, Italy

SOURCE: Farmaco (1997), 52(10), 573-581 CODEN: FRMCE8; ISSN: 0014-827X

PUBLISHER: Societa Chimica Italiana

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

AB Imidazolidine-2,4-diones I (R = Ph, 2-ClC6H4, 1-adamantylmethyl, R' = H, 2-Cl, 4-Cl, 3,4-Cl2, R" = Ph, 2-naphthyl, PhO, etc.) and 1,5-di-Ph tetramic acid derivs. II (R = H, Cl) and III were selected in order to evaluate some 5-membered heterocyclic ring compds. as potential templates for the synthesis of CCK receptor ligands. All the compds. were evaluated in vitro towards both CCK-B and CCK-A receptors.

IT 53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation and CCK-A and  ${\sf -B}$  binding affinity of imidazolidinediones and tetramic acid derivs.)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 26 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:801039 CAPLUS

DOCUMENT NUMBER: 128:75654

TITLE: Tetrahydropyrrolo[2,3-b]indole-1,2,8-tricarboxylic

acid ester in the enantiospecific preparation of

 $\alpha$ -methyltryptophan: application in the

preparation of carbon-14 labeled PD 145942 and PD

154075

Ekhato, I. Victor; Huang, Yun AUTHOR(S):

CORPORATE SOURCE: Parke-Davis Pharmaceutical Research Division of Warner-Lambert Company, Department of Chemical

Development, Ann Arbor, MI, 48105, USA

SOURCE:

Journal of Labelled Compounds & Radiopharmaceuticals

(1997), 39(12), 1019-1038

CODEN: JLCRD4; ISSN: 0362-4803

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 128:75654

GΙ

AB [2R- $(2\alpha, 3a\beta, 8a\beta)$ ]-2,3,3a,8a-Tetrahydro-pyrrolo[2,3b]indole-1,2,8-tricarboxylic acid-1,8-dibenzyl ester 2-Me ester (I), its [2S-(2 $\beta$ , 3a $\alpha$ , 8a $\alpha$ )]-isomer, and the tribenzyl ester analogs were prepared From these [2,3-b]indole-1,2,8-tricarboxylic acid esters we accomplished a simple, high yielding preparation of enantiopure  $\alpha$ -methyltryptophan and Me ester derivs. Using this protocol, we inexpensively made (R)- $\alpha$ -[14C]methyltryptophan Me ester, and in subsequent reactions converted it into PD 145942, II (Ad2 = 2-adamantyl) and PD 154075, III. Both of these compds. are drug candidates in preclin. study for the treatment of anxiety and emesis resp.

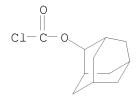
53120-53-9, 2-Adamantyl chloroformate ΙT

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of methyltryptophan and its application in the preparation of labeled PD 145942 and PD 154075)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 27 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

1997:771577 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 128:48482

Amino acids and peptides. LI. Application of the TITLE:

2-adamantyloxycarbonyl (2-Adoc) group to the

protection of the hydroxyl function of tyrosine in

peptide synthesis

AUTHOR(S): Okada, Yoshio; Shintomi, Noriyuki; Kondo, Yukihiro;

Yokoi, Toshio; Joshi, Shima; Li, Wei

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Kobe Gakuin

University, Kobe, 651-21, Japan

Chemical & Pharmaceutical Bulletin (1997), 45(11), SOURCE:

1860-1864

CODEN: CPBTAL; ISSN: 0009-2363

PUBLISHER: Pharmaceutical Society of Japan

Journal DOCUMENT TYPE: LANGUAGE: English

A 2-adamantyloxycarbonyl (2-Adoc) group was introduced as a protecting group for the hydroxyl function of Tyr through the Shotten-Bauman reaction of 2-adamantyloxycarbonyl chloride with the copper complex of Tyr. The 2-Adoc group is stable to trifluoroacetic acid (TFA), 5.0 N HCl/dioxane, hydrogenation over a Pd catalyst and tertiary amine, and is easily removed by treatment with 1 M trifluoromethanesulfonic acid (TFMSA)-

thioanisole/TFA and HF. Boc-Tyr(2-Adoc)-OH (Boc = Me3CO2C) was prepared by the reaction of Boc2O and H-Tyr(2-Adoc)-OH in the presence of Et3N.

Boc-Tyr(2-Adoc)-OH was successfully applied to the synthesis of

Boc-Ala-Thr-Val-Lys(2-Adoc)-Phe-Lys(2-Adoc)-Tyr(2-Adoc)-Lys(2-Adoc)-Gly-OH, corresponding to the sequence 1-9 of Sulfolobus solfataricus RNase, and Boc-Tyr(2-Adoc)-Asp(0-2-Ada)-Glu(0-cHex)-Gly-OH, corresponding to the sequence 33-36 of S. solfataricus RNase. Boc-Phe-Lys(2-Adoc)-Tyr(2-Adoc)-

Lys(2-Adoc)-Gly-OBzl was treated with anhydrous HF to afford H-Phe-Lys-Tyr-Lys-Gly-OH without any side reactions in good yield.

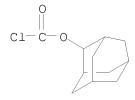
53120-53-9, 2-Adamantyl chloroformate ΙT

RL: RCT (Reactant); RACT (Reactant or reagent)

(application of adamantyloxycarbonyl protective group for the protection tyrosine side chains in peptide synthesis)

RN 53120-53-9 CAPLUS

Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME) CN



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 28 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

1997:342745 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 127:51005

TITLE: Preparation of N-substituted cycloalkyl and

polycycloalkyl  $\alpha$ -substituted Trp-Phe- and phenethylamine derivatives as anxiolytics and cholecystokinin activity-modifying agents

INVENTOR(S): Horwell, David C.; Pritchard, Martyn C.; Roberts,

Edward; Richardson, Reginald S.; Aranda, Julian

PATENT ASSIGNEE(S): Warner-Lambert Company, USA

SOURCE: U.S., 108 pp., Cont.-in-part of U.S. Ser. No. 958,196,

abandoned. CODEN: USXXAM

Patent

DOCUMENT TYPE: LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PA:	PATENT NO.				)	DATE		API	PLICATION NO.			DATE
US	5631281			A		19970520		US	1994-235814			19940428
AU	9059628			Α		19910117		AU	1990-59628			19900628
AU	644088			В2		19931202						
ZA	9005057			A		19920226		ZA	1990-5057			19900628
EP	479910			A1		19920415		ΕP	1990-911185			19900628
	R: AT,	BE,	CH,	DE,	DK,	ES, FR,	GB,	, I:	r, LI, LU, NL,	SE		
JP	04506079			T		19921022		JΡ	1990-510126			19900628
JP	2972331			В2		19991108						
CA	2060652			С		20010821		CA	1990-2060652			19900628
CA	2344707			С		20020730		CA	1990-2344707			19900628
US	5278316			А		19940111		US	1990-629809			19901219
	106197			В1		20001215			1991-6060			19911220
	9105122			Α		19920227		ИО	1991-5122			19911227
	301831			В1		19971215						
				А		19961203			1995-447142			
US	5622983			А		19970422		US	1995-447141			19950522
PRIORITY	Y APPLN.	INFO	.:					US	1989-374327		В2	19890629
								US	1989-422486			19891016
									1990-580811			19900605
									1990-545222			19900628
									1990-629809			19901219
									1992-958196			19921007
									1990-530811			19900605
								ΝZ	1990-234264		A	19900627

CA 1990-2060652 A3 19900628 WO 1990-US3553 A 19900628 US 1994-235814 B3 19940428

OTHER SOURCE(S): GI

MARPAT 127:51005

Novel unnatural dipeptoids I [R1 = C3-12 (poly) cycloalkyl containing 0-4AΒ substituents each (un)branched C1-6 alkyl, halo, CN, OR, SR, CO2R, CF3, NR5R6, (CH2)nOR5; R = (un)branched C1-6 alkyl, R5, R6 = H, C1-6 alkyl, n =0-6; A = (CH2)nCO, SO2, S(0), NHCO, (CH2)nO2C, SCO, O(CH2)nCO, CH:CHCO; R2 = (un)branched C1-6 alkyl, CH:CH2, C.tplbond.CH, CH2CH:CH2, CH2C.tplbond.CH, (CH2)nAr, (CH2)nOR, (CH2)nOAr, (CH2)nCO2R, (CH2)nNR5R6; R3, R4 = independently H, R2, (CH2)q-B-D; q = 0-3; B = bond, O2C(CH2)n, O(CH2)n, SO2NH(CH2)n, NHCO(CH2)n, CONH(CH2)n, NHCOCH:CH, CO2(CH2)n, CO(CH2)n, S(CH2)n, S(O)(CH2)n, SO2(CH2)n, CONHCR7:CR8, NHCOCR7:CR8, CONHCHR7CHR8, NHCOCHR7CHR8, CR7:CR8, CHR7CHR8; R7, R8 = independently H, R2; R7R8 = (CH2)m, m = 1-5; D = CO2R, CH2OR, CH2OR, CH2SR, CH2SR, CONR5R6, CN, NR5R6, OH, PhSO2NHCO, CF3CONHCO, CF3SO2NHCO, H2NSO2, H, acid replacement group such as tetrazole; R9 = H, (un)branched C1-6 alkyl, (CH2)nCO2R, (CH2)nOAr, (CH2)nAr, (CH2)nNR5R6; R10 = OH, NH2, Me, C1; R11 = CN, CO2H, CF3; Ar = 2- or 3-thienyl, 2- or 3-furanyl, 2-, 3- or 4-pyridinyl, (un)substituted Ph containing H, halo, Me, OMe, CF3, NO2, OH, NH2, OCF3, NHCOCH2CH2CO2H, or CH2CH2CO2H groups; R12, R13 = H, or taken with R3 and R4 form a double bond] are disclosed. I are  $\alpha$ -substituted Trp-Phe derivs. useful as agents in the treatment of obesity, hypersecretion of gastric acid in the gut, gastrin-dependent tumors, colorectal tumors, or as antipsychotics. Further, compds. I are antianxiety agents, antiulcer agents, antidepressant agents, and are agents useful for preventing the withdrawal response produced by chronic treatment or use followed by chronic treatment followed by withdrawal from nicotine, diazepam, alc., cocaine, caffeine, or opioids. Also disclosed are pharmaceutical compns. and methods of treatment using the dipeptoids as well as processes for preparing them and novel intermediates useful in

ΙI

their preparation. An addnl. feature of the invention is the use of the subject compds. to prepare pharmaceutical and diagnostic compns. Thus, methyltryptophan derivative II, prepared from tert-butoxycarbonyl-L-phenylalaninol, 2-adamantyloxycarbonyl- $\alpha$ -methyl-D-tryptophan, and monomethyl fumarate, displayed Ki = 0.00008  $\mu\text{M}$  in a central cholecystokinin binding assay.

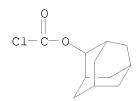
IT 53120-53-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of [(poly)cycloalkoxycarbonyl]methyltryptophan derivs. as anxiolytics and cholecystokinin activity-modifying agents)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 29 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:213304 CAPLUS

DOCUMENT NUMBER: 126:305766

TITLE: Amino acids and peptides. L. Development of a novel

 $N\pi$ -protecting group for histidine,

 $N\pi-2$ -adamantyloxymethylhistidine, and its

application to peptide synthesis

AUTHOR(S): Okada, Yoshio; Wang, Jidong; Yamamoto, Takeshi; Yokoi,

Toshio; Mu, Yu

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Kobe Gakuin

University, Kobe, 651-21, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1997), 45(3),

452-456

CODEN: CPBTAL; ISSN: 0009-2363
Pharmaceutical Society of Japan

PUBLISHER: Pharmace
DOCUMENT TYPE: Journal
LANGUAGE: English

GΙ

AB  $N\alpha$ -tert-butyloxycarbonyl- $N\pi$ -adamantyloxymethylhistidine, Boc-His( $N\pi$ -2-Adom)-OH (I), was prepared by the reaction of

Boc-His(N $\tau$ -Boc)-OMe with 2-adamantyloxymethyl chloride (2-Adom-Cl) followed by saponification The 2-Adom group was stable to TFA, 1 N NaOH and

20%

piperidine/DMF and was easily removed by 1 M trifluoromethanesulfonic acid-thioanisole/TFA and HF. This new protecting group suppressed racemization during peptide synthesis and exhibited high solubility in organic solvents. It was applied to the synthesis of TSH-releasing hormone (TRH) using both solution and solid-phase methods. The 2-Adom group can be used for peptide synthesis in combination with the Boc group as the  $N\alpha\text{-protecting}$  group in both solution and solid-phase methods.

IT 177609-29-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(adamantyloxymethyl as a protecting group for imidazole  $\pi\text{-N}$  of histidine)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH2-O

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 30 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:70350 CAPLUS

DOCUMENT NUMBER: 126:199453

TITLE: Preparation of adamantyl indolylalkylcarbamates and

analogs as cholecystokinin antagonists

INVENTOR(S): Horwell, David C.; Roberts, Edward; Holmes, Ann;

Padia, Janak K.; Roark, William H.; Roth, Bruce D.; Trivedi, Bharat K.; Kleinschroth, Jurgen; Rees, David

C.; Richardson, Reginald S.

PATENT ASSIGNEE(S): Warner-Lambert Company, USA

SOURCE: U.S., 77 pp., Cont.-in-part of U.S. Ser. No. 839, 647,

abandoned.
CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5593967	A	19970114	US 1993-41647	19930401
ZA 9106922	A	19930301	ZA 1991-6922	19910830
US 5846942	A	19981208	US 1996-709316	19960909
PRIORITY APPLN. INFO.:			US 1990-576628	B2 19900831
			US 1991-726655	B2 19910712
			US 1992-839647	B2 19920221
			US 1993-41647	A3 19930401

OTHER SOURCE(S): MARPAT 126:199453

R1AE(CH2)mCR2(CR5R6R7)n(CH2)pXq(CHR3)r(CHR4)sYt(CR20R12)u(CHR13)vR8 [I; A AB = bond, O, (alkyl)imino, etc.; E = bond, divalent amino acid residue, (CHR3)r, NHCO, CO2, etc.; R1 = (poly)cycloalkyl, heterocyclyl, etc.; R2,R20 = H, alkyl, vinyl, alkoxy(alkyl), aryl(alkyl), etc.; R3,R4 = groups cited for R2 or (CH2) nBD; B = bond, CO2(CH2) n, CONH(CH2) n, etc.; D = H, OH, CO2H, alkoxycarbonyl, CH2OH, alkoxymethyl, etc.; R5,R6 = H or alkyl; R7,R8 = cycloalkyl, (hetero)aryl, etc.; R12,R13 = H or (CH2)nBD; R12R13 = bond; X,Y = CONH, NHCO, CO2, CH2O, etc.; m,n,p-v = 0-6] were prepared Thus, R102CNHCHRCH2R7 (R1 = 2-adamantyl, R7 = 3-indolyl)(II; R = CO2H) was converted in 2 steps to (R)-II (III; R = CHO) which was reductively aminated by (S)-PhCH2CH(NH2)CH2OH to give III [R = (S)-PhCH2CH(NH2)CH2OH]CH2NHCH(CH2OH)CH2Ph]. Data for biol. activity of I were given.

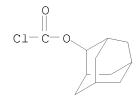
ΙT 53120-53-9P, 2-Adamantyl chloroformate

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of adamantyl indolylalkylcarbamates and analogs as cholecystokinin antagonists)

53120-53-9 CAPLUS RN

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 31 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:568849 CAPLUS

DOCUMENT NUMBER: 125:301545

Synthesis and receptor binding affinity of TITLE:

cholecystokinin receptor ligands: 2- and 1-indolyl

derivatives of PD134308

AUTHOR(S): Araldi, Gianluca; Donati, Daniele; Oliosi, Beatrice;

Ursini, Antonella; Van Amsterdam, Frank

CORPORATE SOURCE: Med. Res. Cent., Glaxo Wellcome S.p.A., Verona, 37135,

Italy

SOURCE: Farmaco (1996), 51(7), 471-476

CODEN: FRMCE8

Societa Chimica Italiana PUBLISHER:

DOCUMENT TYPE: Journal LANGUAGE: English

The synthesis of two "dipeptoids" structurally related to the CCK-B AB antagonist CI-988 (PD134308) is described. (R)-2-

AdocNHCMe(CH2R)CONHCH2CHPhNHCOCH2CH2CO2H (2-Adoc = 2-adamantyloxycarbonyl, R = 2- or 1-indoly1) were prepared in order to define the role of the tryptophan moiety in this series of "dipeptoids". They were evaluated as competitors in the binding of [3H]-CCK8s on guinea pig brain CCK-B receptors.

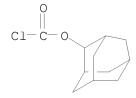
53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(synthesis of indolyl dipeptoids and their cholecystokinin receptor binding affinity)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 32 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:257355 CAPLUS

DOCUMENT NUMBER: 125:34138

TITLE: Synthesis of  $N\pi$ -2-adamantyloxymethylhistidine,

His  $(N\pi-2-Adom)$ , and its evaluation for peptide

synthesis

Okada, Yoshio; Wang, Jidong; Yamamoto, Takeshi; Mu, Yu AUTHOR(S):

CORPORATE SOURCE: Faculty Pharmaceutical Sciences, Kobe Gakuin Univ.,

Kobe, 651-21, Japan

SOURCE: Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1996), (8),

753 - 4

CODEN: JCPRB4; ISSN: 0300-922X

PUBLISHER: Royal Society of Chemistry

Journal DOCUMENT TYPE: LANGUAGE: English

CASREACT 125:34138 OTHER SOURCE(S):

 $N\pi-2$ -Adamantyloxymethylhistidine, His $(N\pi-2$ -Adom), is prepared and successfully applied to the synthesis of TSH-releasing hormone (TRH) in

combination with tert-butyloxycarbonyl (Boc) as the  $N\alpha$ -protecting

group. This new protecting group suppressed racemization during peptide

synthesis and exhibited high solubility in organic solvents.

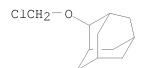
ΙT 177609-29-9P

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and peptide coupling reactions of protected (adamantyloxymethyl)histidine)

RN 177609-29-9 CAPLUS

Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME) CN



L13 ANSWER 33 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:213862 CAPLUS

DOCUMENT NUMBER: 124:306530

TITLE: Synthesis and receptor-binding affinity of dipeptoid cholecystokinin ligands

AUTHOR(S): Araldi, G.; Donati, D.; Oliosi, B.; Pasquarello, A.;

Polinelli, S.; Tarzia, G.; Ursini, A.; van Amsterdam,

F. T. M.

CORPORATE SOURCE: Glaxo SpA, Verona, 37135, Italy

SOURCE: European Journal of Medicinal Chemistry (1996), 31(3),

215-20

CODEN: EJMCA5; ISSN: 0223-5234

PUBLISHER: Elsevier DOCUMENT TYPE: Journal LANGUAGE: English

AB This paper describes the synthesis of methyloxoadamantyloxycarbonylaminopr opylamino phenylethylaminooxobutanoic acid derivs., which are structurally related to PD134308 and in which the indole moiety is replaced by other

aromatic groups. Cholecystokinin-A and -B (CCK-A and CCK-B) receptor binding affinities of these analogs are described and the contribution of the various rings is discussed. Several of the compds. prepared have CCK-B receptor binding values similar to that reported for PD134308 and are highly selective over the CCK-A receptor. They represent potential

therapeutic agents for anxiety.

IT 53120-53-9, 2-Adamantyl chloroformate

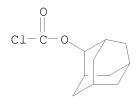
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation and receptor-binding affinity of dipeptoid cholecystokinin

ligands)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 34 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:127040 CAPLUS

DOCUMENT NUMBER: 124:246220

TITLE: Photochemical reactions of some mono- and diketo derivatives of adamantane in different solvents

AUTHOR(S): Rykov, S. V.; Skakovskii, E. D.; Oppengeim, V. D.;

Bagrii, E. I.; Filatova, M. P.

CORPORATE SOURCE: A. V. Topchiev Inst. Petrochemical Synthesis, Russian

Academy Sci., Moscow, 117912, Russia

SOURCE: Izvestiya Akademii Nauk, Seriya Khimicheskaya (1995),

(9), 1833-5 CODEN: IASKEA

PUBLISHER: Institut Organicheskoi Khimii im. N. D. Zelinskogo

Rossiiskoi Akademii Nauk

DOCUMENT TYPE: Journal LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 124:246220

AB Adamantanes are photoactive in the presence of CC14 and CDC13. The mechanism of photolysis suggested to include the formation of singlet- or

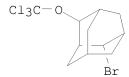
triplet-excited donor-acceptor complexes.

IT 174972-28-2 174972-29-3

RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative) (photochem. reactions of mono- and diketo adamantane derivs. in presence of carbon tetrachloride)

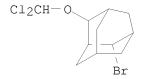
RN 174972-28-2 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-bromo-4-(trichloromethoxy)- (CA INDEX NAME)



RN 174972-29-3 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-bromo-4-(dichloromethoxy)- (CA INDEX NAME)



L13 ANSWER 35 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:836390 CAPLUS

DOCUMENT NUMBER: 124:56661

TITLE: Amino acids and peptides. Part 42. Application of the

2-adamantyloxycarbonyl (2-Adoc) group to the

protection of the imidazole function of histidine in

peptide synthesis

AUTHOR(S): Nishiyama, Yasuhiro; Shintomi, Noriyuki; Kondo,

Yukihiro; Izumi, Takako; Okada, Yoshio

CORPORATE SOURCE: Faculty Pharmaceutical Sciences, Kobe-Gakuin

University, Kobe, 651-21, Japan

SOURCE: Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1995), (18),

2309-13

CODEN: JCPRB4; ISSN: 0300-922X Royal Society of Chemistry

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 124:56661

AB The Nim-2-adamantyloxycarbonyl (2-Adoc) group has been found to be both suitable for protection of the imidazole function of the histidine residue in peptide synthesis in terms of its stability to trifluoroacetic acid, tertiary amines and 1-hydroxybenzotriazole and in its reduction of the racemization rate during the coupling reaction. Nim-2-Adoc protection has also been applied successfully to the solid-phase synthesis of

TSH-releasing hormone which depends on tert-butoxycarbonyl (Boc)-chemical

IT 53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(application of adamantyloxycarbonyl group to protection of imidazole

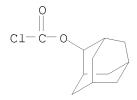
PUBLISHER:

# Page 228

function of histidine in peptide synthesis)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 36 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:742563 CAPLUS

DOCUMENT NUMBER: 123:169496

TITLE: Preparation of  $\alpha$ -methyl-(R)-tryptophyl-

arylcycloalkylalkylamides as ligands for gastrin

receptors

INVENTOR(S): Pascal, Yves; Calvet, Alain Pierre; Grouhel, Agnes;

Junien, Jean-Louis; Pascaud, Xavier Bernard Louis;

Roman, Francois Joseph; Wettstein, Joseph

PATENT ASSIGNEE(S): Institut de Recherche Jouveinal (I. R. J.), Fr.

SOURCE: PCT Int. Appl., 63 pp.

CODEN: PIXXD2

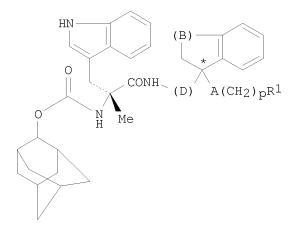
DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA.	PATENT NO.					KIND DATE			APPLICATION NO.						DATE			
WO	9415	 917			A1	_	1994	0721		WO	19	 994-1	 FR33			1	9940	111
	W:	AU,	BB,	BG,	BR,	BY,	CA,	CN,	CZ,	FΙ	Ι,	HU,	JP,	KP,	KR,	KΖ,	LK,	MG,
		MN,	MW,	NO,	NΖ,	PL,	RO,	RU,	SD,	Sk	ζ,	UA,	US,	VN				
	RW:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GF	۲,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	MI	٠,	MR,	ΝE,	SN,	TD,	ΤG		
FR	2700.	540			A1		1994	0722		FR	19	993-	331			1	9930	115
FR	2700	540			В1		1995	0217										
AU	9458	615			A		1994	0815		ΑU	19	994-	5861	5		1	9940	111
PRIORIT:	Y APP	LN.	INFO	. :						FR	19	993-	331		,	A 1	9930	115
										WO	19	994-1	FR33			W 1	9940	111
OTHER SO	OURCE	(S):			MAR1	PAT	123:	16949	96									

GΙ



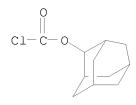
AB The title compds. [I; A = direct bond, NHCO; B = CH2, CH2CH2; D = direct bond, CH2; R1 = 1H-tetrazol-5-yl, COR2; R2 = H0, alkoxy, N-indolinyl, (un)substituted cycloalkylamino; p = 0-2; the \* represents an asym. C atom], useful as gastrin receptor ligands, and of use in treating gastric and/or central nervous system disorders, are prepared and I-containing formulations presented. Thus,  $3-[1-[N-[(2-adamantyloxy)carbonyl]-\alpha-methyl-(R)-tryptophyl-aminoethyl]indanyl]amino]-3-oxopropanoic acid N-methyl-D-glucamine salt, m.p. 115-120°, was prepared in 6 steps and demonstrated IC50 of 0.55 nM for gastrin receptors and 1.30 nM for CCKb receptors.$ 

Ι

IT 53120-53-9, 2-Adamantyl chloroformate RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of  $\alpha$ -methyl-(R)-tryptophyl-arylcycloalkylalkylamides as ligands for gastrin receptors)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 37 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:630741 CAPLUS

DOCUMENT NUMBER: 123:314414

TITLE: The asymmetric synthesis of non-peptide CCK-A receptor

agonists

AUTHOR(S): Burgaud, B. G. M.; Horwell, D. C.; Pritchard, M. C.;

Bernad, N.; Martinez, J.

CORPORATE SOURCE: Parke-Davis Neuroscience Research Centre, Cambridge,

CB2 2QB, UK

SOURCE: Tetrahedron: Asymmetry (1995), 6(5), 1081-4

CODEN: TASYE3; ISSN: 0957-4166

PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

OTHER SOURCE(S): CASREACT 123:314414

GΙ

CH<sub>2</sub>CONH (CH<sub>2</sub>) 4NHCONH

CONH (CH<sub>2</sub>) 2Ph

NH-2-Adoc

AB The asym. synthesis, CCK receptor binding affinities and CCK-A agonist properties of novel non-peptide CCK-A receptor selective ligand I is reported.

Ι

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)

C1-C-0

L13 ANSWER 38 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:606572 CAPLUS

DOCUMENT NUMBER: 123:33642

TITLE: Preparation of amino acid amide analogs as

cholecystokinin antagonists.

INVENTOR(S): Horwell, David C.; Aranda, Julian; Augelli-Szafran,

Corinne; Betche, Hans-Jurgen; Holmes, Ann; Mullican, Michael D.; Pritchard, Martyn C.; Richardson, Reginald

S.; Roberts, Edward; et al.

PATENT ASSIGNEE(S): Warner-Lambert Co., USA

SOURCE: U.S., 64 pp. Cont.-in-part of U.S. Ser. No. 576,308,

abandoned.
CODEN: USXXAM

DOCUMENT TYPE: CODEN: USX

# Page 231

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PA	TENT	NO.			KIN	D	DATE		Z	APE	PLICATION NO.			DATE
						_			-				_	
US	5331	006			Α		1994	0719	Ţ	IJS	1991-726656			19910712
WO	9204	025			A1		1992	0319	V	ΜO	1991-US6181			19910829
	W:	ΑU,	CA,	FΙ,	JP,	KR	, NO							
	RW:	ΑT,	BE,	CH,	DE,	DK	, ES,	FR,	GB,	GF	R, IT, LU, NL,	SE		
AU	9186	538			A		1992	0330	Z	ΑU	1991-86538			19910829
ZA	9106	918			A		1993	0301	2	ZΑ	1991-6918			19910830
PRIORIT	Y APP	LN.	INFO	.:					Ţ	IJS	1990-576308		В2	19900831
									Ţ	IJS	1991-726656		Α	19910712
									V	ΜO	1991-US6181		Α	19910829

OTHER SOURCE(S): MARPAT 123:33642

GΙ

AB R1ANHCR2(CH2Ar2)CONR9CR12R3CR13R4Ar [R1 = (substituted) cycloalkyl, polycycloalkyl; A = (CH2)nCO, SO2, SO, NHCO, (CH2)nO2C, SCO, etc.; n = 0-6; R2 = alkyl, CH:CH2, C.tplbond.CH, (CH2)nAr, etc.; R3, R4 = H, R2, etc.; R9 = H, alkyl, (CH2)nCO2R, etc.; R = H, alkyl; R12, R13 = H or are independently taken with R3, R4, resp., to form a moiety doubly bonded to C; Ar = (substituted) (poly)cyclic carbo- or heterocyclic moiety; Ar2 = Ar, or CH2Ar2 = sidechain of a biol. significant amino acid; with provisos], were prepared Title compound I was prepared by solution phase methods.

Ι

Title compds. were active in CCK binding assays using mouse cerebral cortex prepns. Title compds. are claimed as ulcer inhibitors.

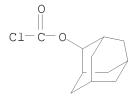
IT 53120-53-9 163798-91-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of amino acid amide analogs as cholecystokinin antagonists)

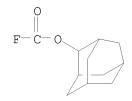
RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



RN 163798-91-2 CAPLUS

Carbonofluoridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME) CN



L13 ANSWER 39 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:538254 CAPLUS

122:291527 DOCUMENT NUMBER:

TITLE: Preparation of amino acid amide cholecystokinin

antagonists.

INVENTOR(S): Kerwin, James F., Jr.; Holladay, Mark W.; Bennett,

Michael J.

PATENT ASSIGNEE(S): Abbott Laboratories, USA

SOURCE: U.S., 42 pp. Cont.-in-part of U.S. Ser. No. 793,414,

abandoned. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5346907	A	19940913	US 1993-17565	19930216
JP 03503650	T	19910815	JP 1989-505008	19890404
EP 442878	A1	19910828	EP 1989-905266	19890404
R: BE, CH, DE,	FR, GB	, IT, LI, NL	, SE	
PRIORITY APPLN. INFO.:			US 1988-177715	B2 19880405
			US 1989-582896	B2 19890404
			US 1989-376778	B2 19890707
			US 1990-793414	B2 19900626
			WO 1989-US1412	W 19890404
OTHER SOURCE(S):	MARPAT	122:291527		

ABCONR1CDR2CONR3R4 [A = (substituted) heteroaryl; B = null, O, S, (substituted) ethylene; R1 = H, alkyl; R2 = H, aralkyl, alkyl, cycloalkyl, alkenyl; R2D = ( O -interrupted) alkylene; D = H, alkyl, alkenyl, cycloalkyl, (substituted) aryl, heterocyclyl, heterocyclylalkyl, etc.; R3 = H, alkyl, alkoxyalkyl, alkenyl, cycloalkyl, aralkyl,

alkoxycarbonylalkyl; R3D = alkylaminocarbonyl, etc.; R4 = alkyl, alkoxyalkyl, alkenyl, aryl, aralkyl, cycoalkyl, cyanoalkyl, alkoxycarbonylalkyl, etc.; NR3R4 = (substituted) heterocyclyl; with provisos], were prepared Thus, BOC-(R)-Val-OH was treated with BOP-Cl, Et3N, and dipentylamine in CH2Cl2 at 0° to give 79% amide, which was deprotected with HCl in dioxane to give 100% (R)-valine dipentylamide hydrochloride. This was treated with EDCI, hydroxybenzotriazole, and quinoline-3-carboxylic acid in CH2Cl2 to give 54% N-(3'-quinolinylcarbonyl)-(R)-valine dipentylamide. This inhibited [125I]-BH-CCK8 binding to pancreatic and cortical membrane prepns. with IC50 = 40 nM and 17,000 nM, resp., and inhibited CCK8-induced amylase release with IC50 = 290 nM.

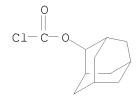
IT 53120-53-9, 2-Adamantyloxy chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of amino acid amide cholecystokinin antagonists)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 40 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:420808 CAPLUS

DOCUMENT NUMBER: 123:111679

TITLE: Bis-urea agents acting at cholecystokinin receptors

INVENTOR(S): Tait, Bradley D.; Wilson, Michael W.

PATENT ASSIGNEE(S): Warner-Lambert Co., USA

SOURCE: U.S., 29 pp. Cont.-in-part of U.S. Ser. No. 947,234,

abandoned.
CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PA:	TENT :	NO.			KINI	D DATE		APPL]	ICATI(	ON NO.		DATE
US	5389	682			Α	1995	0214	US 19	993-1	18374		19930913
WO	9406	757			A1	1994	0331	WO 19	993-U	S8733		19930915
	W:	ΑU,	CA,	CZ,	FΙ,	HU, JP,	KR,	NO, NZ,	RU,	SK		
	RW:	ΑT,	BE,	CH,	DE,	DK, ES,	FR,	GB, GR,	IE,	IT, LU,	MC,	NL, PT, SE
AU	9349	245			A	1994	0412	AU 19	993-49	9245		19930915
US	6103	761			Α	2000	0815	US 19	994-3	25852		19941019
PRIORIT	Y APP	LN.	INFO	.:				US 19	992-9	47234	В	2 19920918
								US 19	993-1	18374	А	19930913
								WO 19	993-U	S8733	W	19930915

OTHER SOURCE(S): MARPAT 123:111679

AB The invention concerns a series of novel bis-urea derivs., nonpeptides, which show good binding affinity for the CCK-B receptor. The compds.,

### Page 234

compns. containing them, methods of preparation, and utilities including anxiety,

gastric acid secretion inhibition, and psychoses are included. Binding affinity for CCK-B (Ki) for representative compds. of the invention were in the range 93-371 nM.

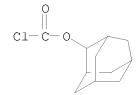
IT 53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(bis-urea agents acting at cholecystokinin receptors)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 41 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:354680 CAPLUS

DOCUMENT NUMBER: 123:199410

TITLE: Modulators of cholecystokinin

INVENTOR(S): Sugg, Elizabeth E.; Dezube, Milana; Hirst, Gavin C.

PATENT ASSIGNEE(S): Glaxo Inc., USA SOURCE: U.S., 23 pp. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5380872	A	19950110	US 1992-914918	19920714
US 5508432	A	19960416	US 1994-255592	19940608
PRIORITY APPLN. INFO.:			US 1992-914918 A1	19920714
OTHER SOURCE(S):	MARPAT	123:199410		
GI				

CCK modulators, e.g. agonists or antagonists, of the following formula (I; AΒ R18 = benzyl, adamantyl, t-Bu or trans-2-methylcyclohexyl; \* = R, \*\* = R or S). In vitro guinea pig gall bladder assay [% acetylcholine-induced maximum contraction for the test compound at  $30\,\mathrm{mM}$  or x-fold shift of the CCK8 curve in the presence of the test compound (30mM)]: from 6 to 64.7% and x =

Ι

6.8 to 125. Pharmaceutical formulations were given. 53120-53-9P, 2-Adamantyl chloroformate ΙT RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(dipeptoid modulators of cholecystokinin)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)

L13 ANSWER 42 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:266955 CAPLUS

DOCUMENT NUMBER: 122:55730

TITLE: Preparation of arylbis-ureas and benzenesulfonamides

acting at cholecystokinin receptors

INVENTOR(S): Tait, Bradley Dean; Wilson, Michael William

PATENT ASSIGNEE(S): Warner-Lambert Co., USA SOURCE: PCT Int. Appl., 112 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE			
WO 9406757	A1	19940331	WO 1993-US8733	19930915			
W: AU, CA, CZ,	•		NO, NZ, RU, SK GB, GR, IE, IT, LU,	MC NI DT CE			
US 5389682	A A	19950214		19930913			
AU 9349245	A	19940412	AU 1993-49245	19930915			
PRIORITY APPLN. INFO.:			US 1992-947234	A 19920918			
			US 1993-118374	A 19930913			
			WO 1993-US8733	W 19930915			

OTHER SOURCE(S): MARPAT 122:55730

AB Title compds. ZAQCMWCM'W'Q'A'Z' I; (Z, Z' = H, NC, C1-9 alkyl,

(substituted) c5-12 cyclo- or polycycloalkyl; A, A' = bond, (CH2)mCONY'(CH2)n wherein Y' = H, Ph, PhCH2, C1-4 alkyl, R2O2C(CH2)n, R2R1NCO(CH2)n wherein m, n = 0-3, R1, R2 = H, alkyl, etc.; M, M' = H,F, Me; Q, Q' = NY, NY' O wherein Y = Y'; W, W' = (substituted) Ph, H, NC, MeS, CF3SO2, CHO, AcO, halo, heterocyclyl, etc.) or a salt thereof, are prepared I are claimed as appetite suppressants, reducing gastric acid secretion, reducing anxiety, effective for treating gastrointestinal ulcers, psychosis, schizophrenia, and abuse of drugs (no data). To [R-(R,R)]-1,2-diamino-1,2-diphenylethane in Et2O was added 4-(trifluoromethyl)phenyl isocyanate to give [R-(R,R)]-N-(2-amino-1,2-diphenylethyl)-N'[4-(trifluoromethyl)phenyl]urea. To this in CH2Cl2 was added BzCl and Et3N to give after workup [R-(R,R)]-N-[1,2-diphenyl-2-[[[[4-(trifluoromethyl)phenyl]amino]carbonyl]amino]ethyl]benzamide. A large number of I were prepared Several representative I were tested and sowed good binding affinity for CCK-B receptor.

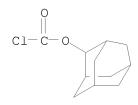
IT 53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of drug for binding to CCK-B receptor)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 43 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:246509 CAPLUS

DOCUMENT NUMBER: 122:32016

TITLE: Preparation of N-substituted cycloalkyl and

polycycloalkyl  $\alpha$ -substituted

tryptophanylphenylalanine derivatives as drugs.
INVENTOR(S): Horwell, David C.; Pritchard, Martyn C.; Richardson,

Reginald S.; Roberts, Edward; Aranda, Julian

PATENT ASSIGNEE(S): Warner-Lambert Co., USA

SOURCE: U.S., 105 pp. Cont.-in-part of U.S. Ser. No. 542,222,

abandoned.
CODEN: USXXAM

# Page 237

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 5278316	A	19940111	US 1990-629809		19901219
AU 9059628	A	19910117			19900628
AU 9059628 AU 644088	В2	19931202			
ZA 9005057			ZA 1990-5057		19900628
EP 479910	A1	19920415	EP 1990-911185		19900628
			GB, IT, LI, LU, NL,	SE	
JP 04506079 JP 2972331	T	19921022	JP 1990-510126		19900628
JP 2972331		19991108			
CA 2060652	С	20010821	CA 1990-2060652		19900628
CA 2344707	С	20020730	CA 1990-2344707		19900628
CN 1049165					19900629
FI 106197		20001215	FI 1991-6060		19911220
NO 9105122	A	19920227	NO 1991-5122		19911227
NO 301831		19971215			
US 5631281		19970520			
US 5580896		19961203			
US 5622983	A	19970422			19950522
PRIORITY APPLN. INFO.:			US 1989-374327		
			US 1989-422486		
			US 1990-530811		19900605
			NZ 1990-234264		19900627
			US 1990-545222		19900628
			US 1990-580811		
			CA 1990-2060652	_	19900628
			WO 1990-US3553		19900628
			US 1990-629809	A3	19901219
			US 1992-958196		
			US 1994-235814	В3	19940428

OTHER SOURCE(S): MARPAT 122:32016

GΙ

R1ANHCR2CONR9CR3R12CR4R13Ar

Title compds. [I; R1 = (substituted) C3-12 (poly)cycloalkyl; A = (CH2)nCO, AΒ SO2, SO, NHCO, (CH2) nO2C, SCO, O(CH2) nCO, HC: CHCO; n = 0-6; R2 = alkyl, HC:CH2, C.tplbond.CH, (CH2)nAr, (CH2)nOAr, etc.; R3, R4 = H, R2, etc.; R9 = H, alkyl, (CH2)nAr, (CH2)nOAr, etc.; R12, R13 = H, or each can be taken with R3 and R4 resp. to form a moiety doubly bonded to the C atom; Ar = (substituted) mono- or polycyclic carbo- or heterocyclic ring; the indole

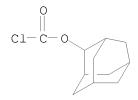
ΙT

ring may be further substituted], were prepared I are cholecystokinin or gastrin agonists/antagonists with antianxiety, antiulcer, and antidepressant activity and are useful for preventing the withdrawal response produced by nicotine, diazepam, alc., cocaine, caffeine, or opiates. Thus,  $[R-(R^*,R^*)]-4-[[2-[[3-(1H-indol-3-yl)-2-methyl-1-oxo-2-$ [[(tricyclo[3.3.1.13,7]dec-2-yloxy)carbonyl]amino]propyl]amino]-1phenylethyl]amino]-4-oxobutanoic acid (II) (prepared in 7 steps starting from BOC-D-2-phenylglycinol) bound to central CCK receptors with Ki = 0.0085  $\mu\text{M}$ , and inhibited feeding in rats with MPE50 = 17.4 mg/kg i.p. (MPE = maximum possible effect, i.e., zero food intake). II showed activity identical to that of diazepam in a light/dark anxiety test using mice. 53120-53-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as intermediate for cholecystokinin analog)

53120-53-9 CAPLUS RN

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 44 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

1995:224860 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 122:133795

Amino acids and peptides. Part 38. Development of a TITLE:

new amino-protecting group, 2-adamantyloxycarbonyl,

and its application to peptide synthesis

AUTHOR(S): Nishiyama, Yasuhiro; Shintomi, Noriyuki; Kondo,

Yukihiro; Okada, Yoshio

CORPORATE SOURCE: Faculty Pharmaceutical Sciences, Kobe-Gakuin

University, Kobe, 651-21, Japan

SOURCE: Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1994), (21),

3201-7

CODEN: JCPRB4; ISSN: 0300-922X

Royal Society of Chemistry PUBLISHER:

Journal DOCUMENT TYPE: LANGUAGE: English

CASREACT 122:133795 OTHER SOURCE(S):

A new lysine  $\varepsilon$ -amino protecting group, 2-adamantyloxycarbonyl

(2-Adoc), was developed, and its application to the solid-phase synthesis of protected peptides was demonstrated in combination with

N2-fluoren-9-ylmethoxycarbonyl (Fmoc) protection and trifluoroacetic acid (TFA)-cleavable resin support. The 2-Adoc group was applied successfully also to the solution-phase peptide synthesis depending on tert-butoxycarbonyl (Boc)-chemical

53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

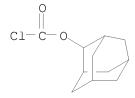
(development and application of lysine side chain 2-

adamantyloxycarbonyl protective group to peptide synthesis)

#### Page 239

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 45 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:218182 CAPLUS

DOCUMENT NUMBER: 122:82049

TITLE: Application of the 2-adamantyloxycarbonyl (2-Adoc)

group to the protection of the imidazole function of

histidine in peptide synthesis

AUTHOR(S): Nishiyama, Yasuhiro; Shintomi, Noriyuki; Kondo,

Yukihiro; Okada, Yoshio

CORPORATE SOURCE: Fac. Pharm. Sci., Kobe-Gakuin Univ., Kobe, 651-21,

Japan

SOURCE: Journal of the Chemical Society, Chemical

Communications (1994), (21), 2515-16

CODEN: JCCCAT; ISSN: 0022-4936

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 122:82049

AB The Nim-2-adamantyloxycarbonyl (2-Adoc) group is suitable for the protection of the imidazole function of the histidine residue in peptide synthesis in terms of its stability to trifluoroacetic acid (TFA),

tertiary amines and 1-hydroxybenzotriazole (HOBt), and its reduction of

racemization rate during the coupling reaction.

IT 53120-53-9, 2-Adamantyl chloroformate

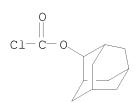
RL: RCT (Reactant); RACT (Reactant or reagent)

(application of the 2-adamantyloxycarbonyl group to the protection of

histidine imidazole in peptide synthesis)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 46 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:656334 CAPLUS

DOCUMENT NUMBER: 121:256334

TITLE: CCK and/or gastrin receptor ligands

INVENTOR(S): Ryder, Hamish; Kendrick, David Alan; Semple, Graeme;

Miyata, Keiji; Batt, Andrzej Roman; Mathews, Elizabeth

Alice; Rooker, David Philip; Nishida, Akito

PATENT ASSIGNEE(S): Ferring B. V., Neth.; Yamanouchi Pharmaceutical Co.

Ltd.

SOURCE: PCT Int. Appl., 282 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.					KIND DATE		APPLICATION NO.					DATE						
	WO 9320099 WO 9320099					19931014 19931125				WO 1993-GB614					19930325			
	W:	AT,	AU,	BB,	BG,	BR,	CA,	CH,	CZ,	DE,	DK,	ES,	FI,	GB,	HU,	JP,	KP,	
		KR,	KΖ,	LK,	LU,	MG,	MN,	MW,	NL,	NO,	NΖ,	PL,	PT,	RO,	RU,	SD,	SE,	
		SK,	UA,	US,	VN													
	RW:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	
		BF,	ΒJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	ML,	MR,	ΝE,	SN,	TD,	ΤG			
AU	9337	645			A		1993	1108		AU 1	993-	3764	5		1	9930	325	
PRIORIT	Y APP	LN.	INFO	.:					1	GB 1	992-	6757			A 1	9920	327	
									,	WO 1	993-	GB61	4		A 1	9930	325	

OTHER SOURCE(S): MARPAT 121:256334

GΙ

AB Peptide analogs ABC [A = aromatic, azaarom., aromatic amino acid, aralkyl, azaaralkyl, aralkanoyl, azaaralkanoyl; B = amino, aminoalkyl; C = amino] (175 compds.) were prepared Thus, the threonine derivative I was prepared from D-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid, Me3CO2C-Thr(OCH2Ph)-OH, and 3-ClC6H4NCO in 6 steps. I had binding affinities for cholecystokinin A and B receptors of 170 and 20 nM resp. Selective cholecystokinin B receptor antagonists also inhibit pentagastrinstimulated gastric secretion; the indole derivative II had an ED50 of 0.20  $\mu$ mole/kg in rats.

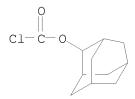
IT 53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant, preparation of cholecystokinin antagonist peptide analogs)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 47 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:631319 CAPLUS

DOCUMENT NUMBER: 121:231319

TITLE: Rational design of high affinity tachykinin NK2

receptor antagonists

AUTHOR(S): Boyle, S.; Guard, S.; Hodgson, J.; Horwell, D. C.;

Howson, W.; Hughes, J.; McKnight, A.; Martin, K.;

Pritchard, M. C.; et al.

CORPORATE SOURCE: Parke-Davis Neuroscience Research Centre, Cambridge,

CB2 20B, UK

SOURCE: Bioorganic & Medicinal Chemistry (1994), 2(2), 101-13

CODEN: BMECEP; ISSN: 0968-0896

DOCUMENT TYPE: Journal LANGUAGE: English

The rational discovery of a high affinity neurokinin-2 (NK2) receptor antagonist is described utilizing a general strategy for peptide design. The contribution to NK2 receptor binding affinity for each amino acid of the hexapeptide min. fragment H-Leu-Met-Gln-Trp-Phe-Gly-NH2 was examined by preparing derivs. where each amino acid in turn was replaced with Ala. The results from this study indicated the primary importance of the Trp and Phe side-chain for binding and led to the observation that Z-Trp-Phe-NH2 (Z = PhCH2O2C) is a micromolar affinity NK2 receptor dipeptide lead. Further exploration of structure-affinity via conformationally restricted analogs and N- and C-terminus modifications gave a selective, nanomolar affinity NK2 receptor antagonist, 2,3-(MeO)2C6H3CH2O2C-Trp-L- $\alpha$ -MePhe-Gly-NH2 (PD 147714) with an Ki = 1.4 nM [hamster urinary bladder membranes and using [125I]-iodohistidylneurokinin-A (0.1 nM) as the radioligand].

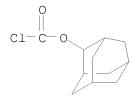
IT 53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(acylation by, of neurokinin receptor antagonist)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 48 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:135117 CAPLUS

DOCUMENT NUMBER: 120:135117

TITLE: Tetrapeptide CCK agonists: structure-activity studies

on modifications at the N-terminus

AUTHOR(S): Elliott, Richard L.; Kopecka, Hana; Bennett, Michael

J.; Shue, Youe Kong; Craig, Richard; Lin, Chun Wel; Bianchi, Bruce R.; Miller, Thomas R.; Witte, David G.;

et al.

CORPORATE SOURCE: Neurosci. Res. Div., Abbott Lab., Abbott Park, IL,

60064, USA

SOURCE: Journal of Medicinal Chemistry (1994), 37(2), 309-13

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal LANGUAGE: English

AB Analogs of the potent and selective tetrapeptide cholecystokinin-A (CCK-A) agonist Boc-Trp-Lys(CONHC6H4Me-2)-Asp-MePhe-NH2 (A-7163; Boc = Me3CO2C) in which the N-terminal Boc functionality was systematically replaced with various amides, ureas, carbamates, and sulfonamides of differing size, hydrophobicity, and stereoelectronic properties were prepared and optimized for potency, selectivity, stability, and efficacy. In general, these analogs maintained good potency and selectivity for the CCK-A receptor (guinea pig pancreas), as well as potent anorectic activity in rats. Those analogs exhibiting equal or superior activity compared to A-71623 but differing physicochem. properties may represent superior drug candidates.

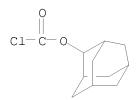
IT 53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(acylation by, of tetrapeptide derivative, in preparation of cholecystokinin agonist)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 49 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:671702 CAPLUS

Page 243

DOCUMENT NUMBER: 119:271702

TITLE:  $\alpha, \beta$ -Didehydrotryptophan as a surrogate for

 $\alpha\text{-methyltryptophan}$  in CCK 'peptoids' related to

CI-988

AUTHOR(S): Eden, J. M.; Horwell, D. C.; Pritchard, M. C.

CORPORATE SOURCE: Parke-Davis Neurosci. Res. Cent., Cambridge, CB22QB,

IJK

SOURCE: Bioorganic & Medicinal Chemistry Letters (1993), 3(6),

989-92

CODEN: BMCLE8; ISSN: 0960-894X

DOCUMENT TYPE: Journal LANGUAGE: English

AB The design and synthesis of high affinity  $\alpha,\beta$ -

didehydrotryptophan-substituted cholecystokinin (CCK) ligands is described. Ligands selective for both the CCK-A and CCK-B receptor

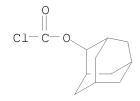
subtypes have been prepared

IT 53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent) (acylation by, of dehydrotryptophan ester)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 50 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:617620 CAPLUS

DOCUMENT NUMBER: 119:217620

TITLE: Cholecystokinin peptidomimetics as selective CCK-B antagonists: Design, synthesis, and in vitro and in

vivo biochemical properties

AUTHOR(S): Blommaert, Armand G. S.; Weng, Jian Hui; Dorville,

Agnes; McCort, Isabelle; Ducos, Bertrand; Durieux,

Christine; Roques, Bernard P.

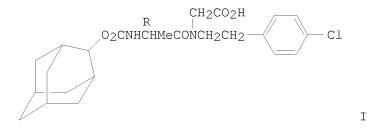
CORPORATE SOURCE: Fac. Pharm., Univ. Rene Descartes, Paris, 75270, Fr.

SOURCE: Journal of Medicinal Chemistry (1993), 36(20), 2868-77

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ



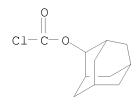
AΒ Antagonists of cholecystokinin-B (CCK-B) receptors have been shown to alleviate CCK4-induced panic attacks in humans and to potentiate opioid effects in animals. The clin. use of these compds. is critically dependent on their ability to cross the blood-brain barrier. In order to improve this property, new, peptoid-derived CCK-B antagonists, endowed with high affinity, selectivity, and increased lipophilicity have been developed. The affinity and selectivity of these compds. have been characterized in vitro and in vivo using quinea pig, rat, and mouse. Most of these compds. proved to be selective for the CCK-B receptor, the most potent analog (I), having a Ki value of 6.1 nM for guinea pig cortex membranes in vitro and a good selectivity ratio (Ki CCK-A/Ki CCK-B = 174). Furthermore, the in vivo affinity of I for mouse brain CCK-B receptors, following intracerebroventricular injection at different concns., was found to be 10 nmol. Using competition expts. with the specific  $\ensuremath{\mathsf{CCK-B}}$ ligand [3H]pBC 264, I was shown to cross the blood-brain barrier (0.2%) after i.p. administration in mice. This compound is therefore an interesting pharmacol. tool to further elucidate the physiopathol. role of endogenous CCK.

IT 53120-53-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (acylation by, of amino acid derivs.)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 51 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:603844 CAPLUS

DOCUMENT NUMBER: 119:203844

TITLE: Development of a new amino-protecting group,

2-adamantyloxycarbonyl (2-Adoc), and its application to the solid-phase synthesis of protected peptides

AUTHOR(S): Nishiyama, Yasuhiro; Okada, Yoshio

CORPORATE SOURCE: Fac. Pharm. Sci., Kobe-Gakuin Univ., Kobe, 651-21,

Japan

SOURCE: Journal of the Chemical Society, Chemical

Communications (1993), (13), 1083-4

CODEN: JCCCAT; ISSN: 0022-4936

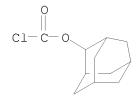
DOCUMENT TYPE: Journal LANGUAGE: English

A new  $\varepsilon$ -amino protecting group, 2-adamantyloxycarbonyl (2-Adoc) has been developed, and its application to the solid-phase synthesis of the protected peptide has been demonstrated successfully in combination with  $N\alpha$ -fluoren-9-ylmethoxycarbonyl protection and trifluoroacetic acid-cleavable resin support.

RL: RCT (Reactant); RACT (Reactant or reagent) (adamantyloxycarbonylation by, of lysine copper complex)

53120-53-9 CAPLUS RN

Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME) CN



L13 ANSWER 52 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:581228 CAPLUS

DOCUMENT NUMBER: 119:181228

TITLE: Preparation of didehydrotryptophans as central CCK

receptor ligands

Horwell, David C.; Pritchard, Martyn C. INVENTOR(S):

PATENT ASSIGNEE(S): Warner-Lambert Co., USA

SOURCE: U.S., 10 pp. CODEN: USXXAM

DOCUMENT TYPE: Patent English

LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5218123	A	19930608	US 1992-837016	19920218
PRIORITY APPLN. INFO.:			US 1992-837016	19920218
OBUBB COURSE (C)		110 101000		

OTHER SOURCE(S): MARPAT 119:181228

RCR2R9CR9(NHZR1)CONR6NR6CR3R7CR4R8A [A = (hetero)(hydro)aromatic; R = 2- or 3-(1H-indolyl); R1 = (substituted) cycloalkyl; R2R5 = bond, (CH2)mX(CH2)n; R3, R4 = H, (CH2)pBD; B = bond, O(CH2)n, NHCO = (CH2)n, CO(CH2)n, etc.; D = CO2H, alkoxycarbonyl, CONH2, cyano, etc.; R6 = H, alkyl, carboxy(alkyl); R7, R8 = H; R7R8 = bond; X = bond, N:N, O, S, etc.; Z = (CH2)nCO, SO2, NHCO, O(CH2) nCO; m = 0-5; n = 0-6;  $m + n \ge 1$ ; p = 0-3] were prepared Thus,  $N-[\alpha,\beta-didehydro-N-[[tricyclo[3.3.1.13,7]dec-2$ yloxy]carbonyl]tryptophyl]-L-3-phenylmethyl- $\beta$ -alanine [mixture of (E)and (Z)-isomers] (preparation given) had Ki of 0.3 nM for binding at central CCK-B receptors in vitro.

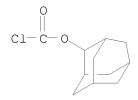
ΤТ 53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of didehydrotryptophan deriv central CCK receptor ligand)

53120-53-9 CAPLUS RN

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 53 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:517830 CAPLUS

119:117830 DOCUMENT NUMBER:

TITLE: Process for the preparation of D-(-) and

L-(+)-3, 3-diphenylalanine and D-(-) and

L-(+)-substituted 3,3-diphenylalanines and derivatives

thereof

Beylin, Vladimir; Chen, Huai G.; Goel, Om P.; Topliss, INVENTOR(S):

John G.

PATENT ASSIGNEE(S): Warner-Lambert Co., USA

SOURCE: U.S., 15 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5198548	А	19930330	US 1992-828399	19920130
WO 9315042	A1	19930805	WO 1993-US689	19930115
W: AU, CA, FI,	HU, JP	, KR, NO, N	IZ, RU	
RW: AT, BE, CH,	DE, DK	, ES, FR, G	GB, GR, IE, IT, LU, I	MC, NL, PT, SE
AU 9335933	A	19930901	AU 1993-35933	19930115
PRIORITY APPLN. INFO.:			US 1992-828399	A 19920130
			WO 1993-US689	A 19930115

OTHER SOURCE(S): MARPAT 119:117830

A process for the preparation of title compds. D- and L-H2NCH[CH(C6H4R)2]CO2H (D- and L-I; R = H, Cl, Br, F, Me, CF3, MeO, 2,4-Cl2, 2,4-Cl2) by treatment of racemic R1CONHCH[CH(C6H4R)2]CO2H (R1 = lower alkyl, CX3; X =H, halo, aryl) with (-)-cinchonidine, separation of the diastereomeric salts by fractional crystallization, salt decomposition, and deprotection is described.

addition of 62 q (-)-cinchonidine in 400 mL hot MeOH to DL-AcNHCH(CHPh2)CO2H (preparation given) in 250 mL hot MeOH followed by cooling and crystallization gave

36.5 g salt D-AcNHCH(CHPh2)CO2H.(-)-cinchonidine (II) and 79.6 g salt L-AcNHCH(CHPh2)CO2H.(-)-cinchonidine. Decomposition of 38.2 g salt II in 950 mL EtOAc with 270 mL 1N HCl gave 19.3 g D-AcNHCH(CHPh2)CO2H, which was hydrolyzed with 1.5 L 6N HCl to give 17.0 g D-I.HCl (R = H). D-I was used in the preparation of endothelin antagonist Ac-D-Dip-Leu-Asp-Ile-Ile-Trp-OH

(Dip = 3,3-diphenylalanine) by solid-phase methods.

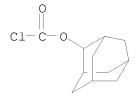
IT 53120-53-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and acylation by, of diphenylalanine stereoisomers)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



AUTHOR(S):

L13 ANSWER 54 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:517787 CAPLUS

DOCUMENT NUMBER: 119:117787

TITLE: Rationally designed 'dipeptoid' analogs of

cholecystokinin (CCK): N-terminal structure-affinity relationships of  $\alpha$ -methyl-tryptophan derivatives Eden, J. M.; Higginbottom, M.; Hill, D. R.; Horwell, D. C.; Hunter, J. C.; Martin, K.; Pritchard, M. C.;

Rahman, S. S.; Richardson, R. S.; Roberts, E.

CORPORATE SOURCE: Parke-Davis Neuroscience Research Centre, Cambridge,

CB2 2QB, UK

SOURCE: European Journal of Medicinal Chemistry (1993), 28(1),

37 - 45

CODEN: EJMCA5; ISSN: 0223-5234

DOCUMENT TYPE: Journal LANGUAGE: English

AB The structure-affinity relationships (SAR) between the N-termini of a series of  $\alpha$ -methyltryptophan phenethylamide derivs. and the cholecystokinin (CCK) B receptor are discussed. A series of compds. R-X-DL- $\alpha$ MeTrp-NHCH2CH2Ph [I;  $\alpha$ MeTrp =  $\alpha$ - methyltryptophan, R = cycloalkyl, bicycloalkyl, tricycloalkyl group, X = 02C, SCO, NHCO, CH2CO, S(O)] were prepared The CCK-B receptor binding affinities of I are discussed. The SAR form part of a systematic program for the rational design of 'dipeptoid' analogs of the neuropeptide CCK. Beginning with I (R = Me3C, X = 02C), the N-terminal moiety was systematically changed for groups of varying size, shape and lipophilicity until the optimal N-terminal group was obtained and the favored linking group chosen, resulting in RO2C-D- $\alpha$ MeTrp-NHCH2CH2Ph (R = 2-adamantyl), with an IC50 = 32 nM in the CCK-B receptor binding affinity

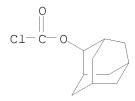
IT 53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(amidation of, with methyltryptophan phenethylamide stereoisomers)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 55 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:234478 CAPLUS

DOCUMENT NUMBER: 118:234478

TITLE: Preparation of N-cycloalkoxycarbonyl- $\beta$ -carboline

analogs containing phenylalanine or phenethylamine

moiety.

INVENTOR(S):
Horwell, David Christopher; Roberts, Edward;

Trostmann, Uwe

PATENT ASSIGNEE(S): Warner-Lambert Co., USA SOURCE: PCT Int. Appl., 92 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

E	PAI	ENT 1	NO.			KIND		DATE		AP:	APPLICATION NO.				DATE
-															
V	WO 9204348					A1		1992	0319	WO	1991-	US6182	2		19910829
		W:	ΑU,	CA,	FI,	JP,	KR,	, NO							
		RW:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB, G	R, IT,	LU, 1	NL, S	E	
J	JS	5244	905			A		1993	0914	US	1991-	726651	l		19910712
I	UA	9191	557			A		1992	0330	AU	1991-	91557			19910829
2	ZA	9106	921			A		1993	0301	ZA	1991-	6921			19910830
PRIOR	ΙΤΥ	APP	LN.	INFO	. :					US	1990-	57629	7	Α	19900831
										US	1991-	726653	1	Α	19910712
										WO	1991-	US6182	2	А	19910829

OTHER SOURCE(S): MARPAT 118:234478

GΙ

AB The title compds. [I; R1 = Me3C, cycloalkyl, polycycloalkyl substituted by alkyl, halo, cyano, OR, SR, NR5R6, (CH2)nOR5; R2 = H, alkyl, CH:CH2, C.tplbond.CH, CH2CH:CH2, CH2C.tplbond.CH, (CH2)nAr, etc.; R3, R4, R14 = H, R2, (CH2)n-B-D; B = bond, OC(CH2)n, NHCO(CH2)n, CONH(CH2)n, etc.; D = CO2R, CH2OR, CH2OR, CH2SR, etc.; R = H, alkyl; R5, R6 = H, alkyl; A = (CH2)nCO, SO2, S(O), NHCO, (CH2)nOCO, SCO, O(CH2)nCO, CH:CHCO, etc.; R9 =

Ι

H, alkyl, etc.; n = 0-6 integer; Ar = mono- or polycyclic (substituted) carbo- or heterocyclic aromatic or hydroarom. moiety; R12, R13 = H, or each independently taken with R3 and R4 resp. to form a moiety doubly bonded to the carbon], and their pharmaceutically acceptable salts, useful as drugs, e.g., as appetite depressants, ulcer inhibitors, are prepared  $\alpha$ -Methyltryptophan Me ester was cyclocondensed with HCHO, the resulting Me 3-methyl-9H-1,2,3,4-tetrahydro- $\beta$ -carboline-3-carboxylate was N2-acylated with 2-adamantyl chloroformate, the product was hydrolyzed, and the resulting free carboxylic acid was amidated with H2NCH2CH2CO2H to give I [R1 = 2-adamantyl, R2 = Me, R3 = R4 = R9 = R12 = R13 = R14 = H, A = CO2, Ar = Ph]. In an in vitro test for the competing binding to CCK receptor sites against tritiated pentagastrin, this product demonstrated a Ki of 150 nM.

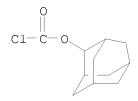
IT 53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of carbolines as drugs)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



AUTHOR(S):

L13 ANSWER 56 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:169582 CAPLUS

DOCUMENT NUMBER: 118:169582

TITLE: Cholecystokinin dipeptoid antagonists: design,

synthesis, and anxiolytic profile of some novel CCK-A and CCK-B selective and mixed CCK-A/CCK-B antagonists Boden, P. R.; Higginbottom, M.; Hill, D. R.; Horwell, D. C.; Hughes, J.; Rees, D. C.; Roberts, E.; Singh,

L.; Suman-Chauhan, N.; Woodruff, G. N.

CORPORATE SOURCE: Parke-Davis Neurosci. Res. Cent., Cambridge, CB2 2QB,

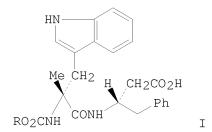
UK

SOURCE: Journal of Medicinal Chemistry (1993), 36(5), 552-65

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal LANGUAGE: English

GI



AΒ The design, synthesis, and structure-activity relationships (SAR) for the development of selective dipeptoid ligands for both of the cholecystokinin (CCK) receptor subtypes CCK-A and CCK-B are described. The SAR developed is used to design a ligand with equal nanomolar binding affinity for both the CCK-A and CCK-B receptor. The CCK-B selective compds. are antagonists in electrophysiol. tests on the rat ventromedial nucleus of the hypothalamus with equilibrium constant Ke = 2.8 nM for I (R = 2-adamantyl) (II) and are also anxiolytic in the mouse light/dark box test with a min. ED = 0.01 mg/kg, s.c., for II. The CCK-A selective compds. are also competitive antagonists by the inhibition of CCK-8S-evoked amylase secretion from pancreatic acinar cells with Ke = 16 nM for the enantiomer of II (III). In electrophysiol. tests on the rat dorsal raphe (an area rich in CCK-A receptors), III had Ke = 12.8 nM. The mixed CCK-A/CCK-B compound I [R = (S,S)-trans-2-methylcyclohexyl] showed antagonistic properties in both CCK-A and CCK-B models; thus it inhibited CCK-8S-evoked amylase secretion from pancreatic acinar cells and is anxiolytic in the light/dark box paradigm. It is concluded, therefore, that the CCK-B receptor (and not the CCK-A receptor) is responsible for the anxiolytic properties of these compds. in these test models.

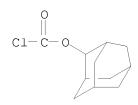
IT 53120-53-9, 2-Adamantyl chloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(acylation by, of methyltryptophan derivs. in preparation of cholecystokinin receptor antagonists)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 57 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:634550 CAPLUS

DOCUMENT NUMBER: 117:234550

TITLE: Amino acid analogs as CCK antagonists.

INVENTOR(S): Horwell, David Christopher; Aranda, Julian;
Augelli-Szafran, Corinne Elizabeth; Betche, Hans
Jurgen; Holmes, Ann; Mullican, Michael David;

Pritchard, Martyn Clive; Richardson, Reginald Stewart;

Roth, Bruce David; et al.

PATENT ASSIGNEE(S): Warner-Lambert Co., USA SOURCE: PCT Int. Appl., 209 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT N	0.	KIND	DATE	APPLICATION NO.		DATE
WO 92040	25	A1	19920319	WO 1991-US6181		19910829
W:	AU, CA, F	, JP, I	KR, NO			
RW:	AT, BE, CH	H, DE, I	DK, ES, FR,	GB, GR, IT, LU, NL,	SE	
US 53310	06	A	19940719	US 1991-726656		19910712
AU 91865	38	A	19920330	AU 1991-86538		19910829
PRIORITY APPL	N. INFO.:			US 1990-576308	Α	19900831
				US 1991-726656	Α	19910712
				WO 1991-US6181	A	19910829

OTHER SOURCE(S): MARPAT 117:234550

GI For diagram(s), see printed CA Issue.

AB The title compds. [I; R1 = cycloalkyl, polycycloalkyl hydrocarbyl, etc.; A = (CH2)nCO, SO2, S(O), NHCO, OC(O), etc.; n = 0-6; R2 = alkyl, CH:CH2, C.tplbond.CH, aminoalkyl, etc.; R3, R4 = H, R2, (CH2)m-B-D; m = 0-3; B = bond, OCO(CH2)n, O(CH2)n, NHCO(CH2)n, CONH(CH2)n, CO2(CH2)n, NHCOCH:CH, CO(CH2)n, etc.; D = (substituted) carboxy, hydroxymethyl, etc.; R9 = H, alkyl, etc.; R12, R13 = H; or R12R13 = bond, R13R4 = bond; Ar = mono- or polycyclic (substituted) carbo- or heteroarom. or carbo- or heterohydroarom. moiety; Ar2 = Ar, 1H-indol-yl, (CH2)nNHC(:NH)NHNO2, CH2CO2Me], useful for treatment of pain, panic disorder, drug dependence, as well as alcoholism, are prepared 2-Methyl-3-(1-naphthyl)alanine Me ester (preparation given) was N-acylated with 2-adamantyloxycarbonyl chloride, the product was hydrolyzed, and the product was amidated with phenethylamine to give I [R1 = 2-adamanty], A = OC(0), R2 = Me, R3 = R4 = R9 = R12 = R13= H, Ar = Ph, Ar2 = 1-naphthyl]. This showed a Ki, defined as IC50/(1+[L]Ka) (Ka being the equilibrium dissociation constant and [L] the concentration of

the radiolabel) of 14 M. I were also tested for their ability in treating gastric damage by aspirin, anxiolytic activity, and for treating drug addiction.

IT 53120-53-9

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, in preparation of CCK antagonists)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)

L13 ANSWER 58 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:484251 CAPLUS

DOCUMENT NUMBER: 117:84251

TITLE: Cholecystokinin antagonists, their preparation and

therapeutic use

INVENTOR(S): Horwell, David Christopher; Kleinschroth, Juergen;

Rees, David Charles; Richardson, Reginald Stewart; Roark, William Howard; Roberts, Edward; Roth, Bruce David; Trivedi, Bharat Kalidas; Holmes, Ann; Padia,

Janak Khimchand

PATENT ASSIGNEE(S): Warner-Lambert Co., USA SOURCE: PCT Int. Appl., 211 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PA:	TENT N	Ο.			KIND D		DATE		API	ION NO.			DATE	
WO	9204045 W: AU, CA, FI,				A1		1992	0319	WO	1991–ī	JS6180			19910829
	RW:	AT, :	,	,	,	DK,	ES,				LU, NL,	SE		
	91874				A				AU	1991-8	37492			19910829
	65139	-			В2		1994							
EP	54717	8			A1		1993	0623	EP	1991-9	918880			19910829
	R:	AT,	ΒE,	CH,	DE,	DK,	ES,	FR,	GB, GI	R, IT,	LI, LU,	NL,	SI	Ξ
JP	06502	627			Τ		1994	0324	JP	1991-	517185			19910829
ZA	91069	22			Α		1993	0301	ZA	1991-6	6922			19910830
NO	93007	09			A		1993	0415	NO	1993-	709			19930226
NO	31229	8			В1		2002	0422						
PRIORIT	Y APPL	N. I	NFO	.:					US	1990-	576628		A	19900831
									US	1991-	726655		A	19910712
									WO	1991-	JS6180		A	19910829

OTHER SOURCE(S): MARPAT 117:84251

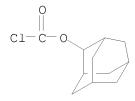
AB Cholecystokinin antagonists (Markush included) are provided for treatment of obesity, hypersecretion of gastric acid in the gut, gastrin-dependent tumors, psychotic behavior, anxiety, ulcers, drug withdrawal, and panic. Preparation of the antagonists and intermediates is included; 38 specific compds. are claimed. In receptor binding studies, tricyclo[3.3.1.13,7]dec-2-yl[1-((2-hydroxy-2-phenylethyl)amino)-3-(1H-indol-3-yl)-2-methylprop-2-yl]carbamate had an inhibition constant of 220 nM. Inhibition consts. for 29 other compds. are tabulated.

IT 53120-53-9P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (preparation and reaction of, for cholecystokinin antagonist)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 59 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:408489 CAPLUS

DOCUMENT NUMBER: 117:8489

TITLE: Preparation of tetrapeptide cholecystokinin agonists INVENTOR(S): Shiosaki, Kazumi; Nadzan, Alex M.; Kopecka, Hana; Shue, Youe Kona; Holladay, Mark W.; Lin, Chun W.;

Nellans, Hugh N.

PATENT ASSIGNEE(S): Abbott Laboratories, USA SOURCE: PCT Int. Appl., 216 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9119733	A1	19911126	WO 1991-US4458	19910620
W: CA, JP				
RW: AT, BE, CH,	DE, DK	, ES, FR, GB	, GR, IT, LU, NL, SE	
US 5270302	A	19931214	US 1991-713010	19910617
PRIORITY APPLN. INFO.:			US 1990-541230	A 19900620
			US 1991-713010	A 19910614
			US 1988-287955	B2 19881221
			WO 1989-US5673	A 19891218
OTHER SOURCE(S).	MARPAT	117.8489		

OTHER SOURCE(S): MARPAT 117:8489

GΙ

#### \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB XYZQ [X = R3(CH2)nCR1R2CR4R5, (indole ring substituted) Q1; R1 = H, OH, halo, alkyl, alkoxy, haloalkyl, alkanoyl, alkoxycarbonyl, aminocarbonyl, cyano, (acyl)amino, etc; R2 = H, alkyl; R3 = bicyclic carbocyclyl, heterocyclyl; R4, R5 = H; or R4R5 = O, n = 1,2; Y = R10HN(CH2)n CH(NR9)CR11R12, R13NCOA(CH2)4CH(NR9)CR11R12; R9 = H, alkyl; R10 = C(:G)NHR13, CO(CH2)pR14, etc.; G = O, S, p = 0, 1, 2; R13 = (cyclo)alkyl, alkenyl, mono- or bicyclic heterocyclyl, etc.; R14 = cycloalkyl, mono- or bicyclic heterocyclyl, (substituted) aryl; R11, R12 = H; or R11R12 = O; A = O, CH2; Z = R17(CH2)rCH(NR16)U; U = CO, CH2, CH2CO; r = 1 when U = CO, CH2; r = 0 when U = CH2CO; R16 = H, alkyl; R17 (prodrug ester of) CO2H; Q = NR23CR24R26(CH2)sR25; s = 1, 2; R23 = H, alkyl; R24 = H, Me; or R23R24 = (CH2)3; R25 = aryl, mono- or bicyclic heterocyclyl, cycloalkyl; R26 = (substituted) carbamoyl] were prepared Thus, title peptide I, prepared by

solution phase methods, inhibited feeding in rats with ED50 = 1.3 nmole/kg i.p.

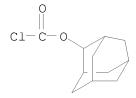
IT 53120-53-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as intermediate for cholecystokinin agonists)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 60 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:194835 CAPLUS

DOCUMENT NUMBER: 116:194835

TITLE: Amide bond replacements incorporated into CCK-B

selective "dipeptoids"

AUTHOR(S): Fincham, Christopher I.; Higginbottom, Michael; Hill,

David R.; Horwell, David C.; O'Toole, John C.;

Ratcliffe, Giles S.; Rees, David C.; Roberts, Edward

CORPORATE SOURCE: Parke-Davis Neuroscience Research Centre, Cambridge,

CB2 2QB, UK

SOURCE: Journal of Medicinal Chemistry (1992), 35(8), 1472-84

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 116:194835

GΙ

## \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB This paper describes the chemical synthesis and CCK-B (CCK = cholecystokinin) and CCK-A receptor binding affinities of a series of compds. in which the central amide bond of the CCK-B "dipeptoid" ligands I (2Adoc = 2-adamantyloxycarbonyl) (CCK-B IC50 = 952 nM) and II CCK-B IC50 = 32 nm) is replaced by 11 different amide replacements. These replacements are the methyleneamino (CH2NH), the reverse amide (NHCO), the ester (COO), the N-methylamide (CONMe), the thioamide (CSNH), the N-acetylmethyleneamino (CH2NAc), the cis double bond (CHCH), the ethylene (CH2CH2), the thiolester (COS), the hydroxyethylene (CHOHCH2), and a 4,5-dihydro-1,3-thiazole. Most of the replacements have weaker affinity and reduced selectivity for the CCK-B receptor than the parent amide. However, this affinity can be improved by appending a fumarate side chain to the phenethyl group, e.g. pseudopeptide III (CCK-B IC50 = 38.8 nM). Replacement of the amide of compound I with a 4,5-dihydro-1,3-thiazole gives pseudopeptide IV, which is selective for the CCK-A receptor (CCK-A IC50 = 125 nM, CCK-B IC50 = 2580 nM, ratio = 21). The methyleneamino and

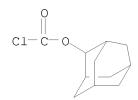
hydroxyethylene replacements, which have been used elsewhere as transition-state inhibitors of enzymes, are poor mimics of the amide in these CCK-B receptor ligands. Some of the steric, lipophilic, and hydrogen bonding properties of amide replacements incorporated into the simple amide, N-methylacetamide, have been quantified with the aid of mol. modeling. These data will contribute to the rational selection of amide bond replacements in other substrates.

IT 53120-53-9

RL: RCT (Reactant); RACT (Reactant or reagent) (acylation by, of D-tryptophan)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 61 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:559698 CAPLUS

DOCUMENT NUMBER: 115:159698

TITLE: Synthesis of an  $\alpha$ -CH2CO2H functionalized

tryptophan and its incorporation into an analog of

cholecystokinin

AUTHOR(S): Bourne, Gregory T.; Horwell, David C.; Pritchard,

Martyn C.

CORPORATE SOURCE: Parke-Davis Res. Unit, Addenbrookes Hosp., Cambridge,

CB2 2QB, UK

SOURCE: Tetrahedron (1991), 47(26), 4763-74

CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 115:159698

GΙ

AB The synthesis of  $\alpha$ ,  $\alpha$ -disubstituted tryptophan derivative I (R = 2-adamantyl) predicted by computer assisted mol. modeling to have close structural and conformational analogy to the endogenous neuropeptide

cholecystokinin, is described. Central to the synthesis of I is the alkylation of tryptophan isonitrile derivative II (Boc = Me3CO2C).

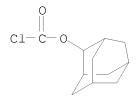
IT 53120-53-9, 2-Adamantylchloroformate

RL: RCT (Reactant); RACT (Reactant or reagent)

(condensation of, with with (carboxymethyl)tryptophan derivs.)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 62 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:450307 CAPLUS

DOCUMENT NUMBER: 115:50307

TITLE: Preparation of N-substituted cycloalkyl and

polycycloalkyl  $\alpha$ -substituted

tryptophanylphenylalanine analogs as drugs

INVENTOR(S): Horwell, David Christopher; Pritchard, Martyn Clive;

Richardson, Reginald Stewart; Roberts, Edward; Aranda,

Julian

PATENT ASSIGNEE(S): Warner-Lambert Co., USA

SOURCE: Eur. Pat. Appl., 133 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE			
EP 405537 EP 405537 R: GR		EP 1990-112333	19900628			
WO 9100274	A1 19910110	WO 1990-US3553	19900628			
		DE, DK, ES, FI, GB, HU				
· · · ·	' ' '	RO, SD, SE, SU, US, US	•			
		CM, DE, DK, ES, FR, GA	., GB, IT, LU,			
	SE, SN, TD, TG					
		AU 1990-59628	19900628			
AU 644088						
ZA 9005057	A 19920226	ZA 1990-5057	19900628			
EP 479910	A1 19920415	EP 1990-911185	19900628			
R: AT, BE, CH,	DE, DK, ES, FR,	GB, IT, LI, LU, NL, SE				
JP 04506079	T 19921022	JP 1990-510126	19900628			
JP 2972331	B2 19991108					
CA 2060652	C 20010821	CA 1990-2060652	19900628			
CA 2344707	C 20020730	CA 1990-2344707	19900628			
AT 275546	T 20040915	AT 1990-112333	19900628			
ES 2229202	T3 20050416	ES 1990-112333				

CN 1049165	A	19910213	CN	1990-106804		19900629
FI 106197	В1	20001215	FΙ	1991-6060		19911220
NO 9105122	A	19920227	ИО	1991-5122		19911227
NO 301831	В1	19971215				
PRIORITY APPLN. INFO.	. :		US	1989-374327	A	19890629
			US	1989-422486	A	19891016
			US	1990-530811	A	19900605
			CA	1990-2060652	А3	19900628
			WO	1990-US3553	A	19900628
OTHER COMPOSITION	MADDAT	115.50307				

OTHER SOURCE(S): MARPAT 115:50307

$$Q^{1} = \begin{array}{c} O \\ O \\ O \\ O \\ O \\ \end{array}$$

$$Q^{2} = \begin{array}{c} HS \\ N \\ N \\ H \\ \end{array}$$

$$Q^{1} = \begin{array}{c} O \\ N \\ N \\ H \\ \end{array}$$

$$Q^{1} = \begin{array}{c} O \\ N \\ N \\ H \\ \end{array}$$

$$Q^{1} = \begin{array}{c} O \\ N \\ N \\ H \\ \end{array}$$

$$Q^{1} = \begin{array}{c} O \\ N \\ N \\ H \\ \end{array}$$

R1ANHCR2(CH2X)CONR9CR3R12CR4R13Ar [I; R1 = (substituted) (poly)cycloalkyl; AΒ A = (CH2)nCO, SO, SO2 NHCO, HC:CHCO, etc.; n = 0-6; R2 = alkyl, HC:CH2, C.tplbond.CH, CH2CH:CH2, CH2C.tplbond.CH, CH2Ar, etc.; R3, R4 = H, R2, CH2mBD; m = 0-3; B = bond, O2C(CH2)n, O(CH2)n, SO2(CH2)n, NHCOCH:CH, etc.; D = cyano, carbamoyl, H, OH, Q1, Q2, etc.; R12, R13 = H; R12R13 = bond; Ar = (substituted) (polycyclic) (hetero) aryl; X = indolyl], were prepared as drugs. Thus,  $N-[(tricyclo[3.3.1.13,7]dec-1-yloxy)carbonyl]-\alpha-methyl-$ DL-tryptophan (preparation from  $\alpha$ -methyl-DL-tryptophan and 1-adamantyl fluoroformate given) in dioxane was treated successively with pentachlorophenol, DCC, and PhCH2CH2NH2 to give 49% title compound II. I displaced tritiated pentagastrin from CCK receptors in rat cortex prepns. with Ki =  $0.00008-21.2 \mu m$ . I are useful as appetite suppressants, gastric acid secretion inhibitors/ulcer inhibitors, anxiolytics, antipsychotics, opioid potentiators, and for treating drug withdrawal reactions.

IT 53120-53-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as intermediates for tryptophanylphenylalanine analog)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)

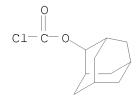
IT 53120-53-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of tryptophanylphenylalanine derivative)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 63 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:422197 CAPLUS

DOCUMENT NUMBER: 103:22197

ORIGINAL REFERENCE NO.: 103:3651a,3654a

TITLE: Adamantane-type carbamates AUTHOR(S): Novikova, M. I.; Kozlov, O. F.

CORPORATE SOURCE: USSR

SOURCE: Vestn. Kiev. Politekhn. In-ta. Khim. Mashinostr. i

Tekhnol. (1984), (21), 6-9

From: Ref. Zh., Khim. 1985, Abstr. No. 2Zh144

DOCUMENT TYPE: Journal LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 103:22197

AB Title only translated.

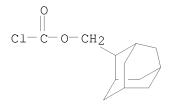
IT 97042-08-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with amines, carbamates by)

RN 97042-08-5 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-ylmethyl ester (CA INDEX NAME)



L13 ANSWER 64 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:488367 CAPLUS

DOCUMENT NUMBER: 99:88367

ORIGINAL REFERENCE NO.: 99:13637a,13640a

TITLE: Phosphonoformic acid esters and pharmaceutical

compositions containing same

INVENTOR(S): Helgstrand, Aake J. E.; Johansson, Karl N.; Misiorny,

Alfons; Noren, Jan O.; Stening, Goeran B.

PATENT ASSIGNEE(S): Astra Laekemedel AB, Swed.

SOURCE: U.S., 27 pp. Cont.-in-part of U.S. Ser. No. 971,896,

abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 4386081	 A	19830531	US 1979-93167	_	19791113
AU 7842681	A	19790628	AU 1978-42681		19781219
AU 520338 AT 7809216	B2 A	19820128 19820415	AT 1978-9216		19781222
AT 369016	В	19821125	A1 1970 9210		19/01222
CA 1156651	A2	19831108	CA 1981-388467		19811021
US 4591583	A	19860527	US 1982-450656		19821217
PRIORITY APPLN. INFO.:			GB 1977-53580	Α	19771222
			GB 1977-53581	А	19771222
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			GB 1978-28548	Α	19780703
			GB 1978-28552	Α	19780703
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			GB 1978-28555	Α	19780703
			US 1978-971896	Α2	19781221
			CA 1978-317487	АЗ	19781206
			US 1979-93167	АЗ	19791113

OTHER SOURCE(S): MARPAT 99:88367

AB About 37 examples of R1OP(O)(OR2)CO2R3 (R1 = H, C1-6 alkyl, C3-6 cycloalkyl, cycloalkylalkyl, 1- and 2-adamantyl, PhCH2; R2 = H, 1-adamantyl; R3 = H, PhCH2) and their physiol. acceptable salts, useful as virucides, were prepared For example, 4-MeOC6H4O2CCl was added dropwise to (EtO)3P and the mixture heated to 120° for 1.5 h and left at room temperature overnight to give 89% (EtO)2P(O)CO2C6H4OMe-4 (I). I at 500  $\mu\text{M}$  gave 69% inhibition of influenza (WSN Wilson Smith Neurotropic type A.) plaque (34°, 4 days).

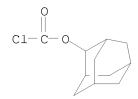
IT 53120-53-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction with phosphites)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 65 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:42112 CAPLUS

DOCUMENT NUMBER: 92:42112

ORIGINAL REFERENCE NO.: 92:7033a,7036a

TITLE: Aliphatic derivatives of phosphonoformic acid,

pharmaceutical compositions and methods for combating

virus infections

INVENTOR(S): Helgstrand, Ake John Erik; Johansson, Karl Nils

Gunnar; Misiorny, Alfons; Noren, Jan Olof; Stening,

Goeran Bertil

PATENT ASSIGNEE(S): Astra Lakemedel AB, Swed.

SOURCE: Eur. Pat. Appl., 106 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 3007	A2 A3 B1	19790711 19790808 19790711	EP 1978-850028	19781219
R: BE, CH, DE,	FR, GE	, IT, LU, N	L, SE	
CA 1140049	A1	19830125	CA 1978-317487	19781206
CA 1144937	A1	19830419	CA 1978-317520	19781206
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DK 148631	С	19860303		
DK 7805642	A	19790623	DK 1978-5642	19781215
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AU 7842681	A	19790628	AU 1978-42681	19781219
AU 520338	В2	19820128		
AU 7842682	Α	19790628	AU 1978-42682	19781219
AU 530031	В2	19830630		
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FI 65438	С	19840510		

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	369016	В	19821125				
AT	7809217	A	19820415	ΑT	1978-9217		19781222
AT	369017	В	19821125				
CA	1156651	A2	19831108	CA	1981-388467		19811021
PRIORIT	Y APPLN. INFO.:			GB	1977-53580		
				GB	1977-53581	Α	19771222
				GB	1977-53582		19771222
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				GB	1978-28548	Α	19780703
				GB	1978-28552	Α	19780703
					1978-28553		19780703
				GB	1978-28555	Α	19780703
					1978-317487		19781206
	prox. 50 R10(R20)P						
	cloalkyl, C4-6 cycl						
	H, halo, C1-3 alky						
al	kvl, C3-8 cvcloalk	vl, C4	-8 cvcloalkv	lal	kvl. 1 2-adaman	tvl	, PhCH2,

AB Approx. 50 R10(R20)P(0)C02R3 (I, R1, R2, = H, Na, C1-6 alkyl, C3-6 cycloalkyl, C4-6 cycloalkylalkyl, 1-, 2-adamantyl, PhCH2, R4R5C6H3, R4, R5 = H, halo, C1-3 alkyl, alkoxy, C2-7 alkoxycarbonyl, acyl; R3 = H, Na, C1-8 alkyl, C3-8 cycloalkyl, C4-8 cycloalkylalkyl, 1-, 2-adamantyl, PhCH2, R4R5C6H3) were prepared from (R10)2P(OR2) and C1C02R3. Thus, 0.12 mol P(OEt)3 was refluxed with C1C02C6H4OMe-p to give 89% (Et0)2P(0)C02C6H4OMe-p. At 500  $\mu$ M, (Et0)(p-MeOC6H4)P(0)C02Ph gave 90% inhibition of herpes simplex type 1 plaque on Green Monkey Kidney cells.

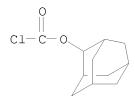
IT 53120-53-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with phosphite, phosphonates from)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



L13 ANSWER 66 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:152109 CAPLUS

DOCUMENT NUMBER: 88:152109

ORIGINAL REFERENCE NO.: 88:23957a,23960a

TITLE: Adamantyl perfluoroisobutenyl ethers

AUTHOR(S): Kryukov, L. N.; Vitkovskii, V. S.; Kryukova, L. Yu.;

Isaev, V. L.; Sterlin, R. N.; Knunyants, I. L.

CORPORATE SOURCE: USSR

SOURCE: Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva im. D.

I. Mendeleeva (1978), 23(1), 115 CODEN: ZVKOA6; ISSN: 0373-0247

DOCUMENT TYPE: Journal LANGUAGE: Russian

AB Treating (F3C)2C:CF2 with ROH (R = 2-naphthyl, 1- and 2-adamantyl) and Na

gave 33-41% (F3C) 2C: CFOR.

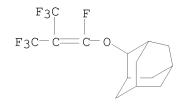
IT 66258-27-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of) 66258-27-3 CAPLUS

RN 66258-27-3 CAPLUS CN Tricyclo[3.3.1.13,7]decane, 2-[[1,3,3,3-tetrafluoro-2-(trifluoromethyl)-1-

propenyl]oxy]- (9CI) (CA INDEX NAME)



L13 ANSWER 67 OF 67 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1974:412781 CAPLUS

DOCUMENT NUMBER: 81:12781

ORIGINAL REFERENCE NO.: 81:2059a,2062a

TITLE: Chemistry of 2-substituted adamantanes. V.

Photolysis of 2-adamantyl azidoformate

AUTHOR(S): Greidanus, J. W.

CORPORATE SOURCE: Sch. Nat. Sci., Univ. Zambia, Lusaka, Zambia

SOURCE: Canadian Journal of Chemistry (1974), 52(7), 1062-5

CODEN: CJCHAG; ISSN: 0008-4042

DOCUMENT TYPE: Journal LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB Irradiation of 2-adamantyl azidoformate in cyclohexane gave 41% I by intermol.

insertion of the nitrene into the solvent. An intramol. insertion

product, shown by its ir spectrum to be a 5-membered cyclic carbamate, was formed in 15% yield.

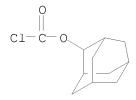
IT 53120-53-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 53120-53-9 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-yl ester (CA INDEX NAME)



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NEWS 9 DEC 17
               USPATOLD added to additional database clusters
NEWS 10 DEC 17
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                DGENE now includes more than 10 million sequences
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NEWS 12 DEC 17 TOXCENTER enhanced with 2008 MeSH vocabulary in
                MEDLINE segment
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chain nodes : 11 12 13 14

ring nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

6-11 11-12 12-13 13-14

ring bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10$ 

exact/norm bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10 \quad 11-12 \quad 12-13$ 

exact bonds : 6-11 13-14

Match level :

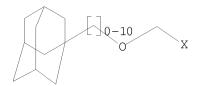
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## L1 STRUCTURE UPLOADED

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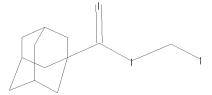
L1 STR



Structure attributes must be viewed using STN Express query preparation.

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chain nodes :

11 12 13 14 15

ring nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

6-11 11-12 11-15 12-13 13-14

ring bonds :

1-2 1-6 2-3 2-7 3-4 4-5 4-10 5-6 6-9 7-8 8-9 8-10

exact/norm bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10 \quad 11-12 \quad 11-15 \quad 12-13$ 

exact bonds : 6-11 13-14

Match level :

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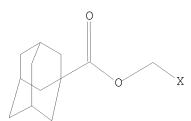
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STR

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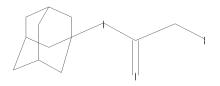
L2



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ring nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

6-11 11-12 12-13 12-15 13-14

ring bonds :

1-2 1-6 2-3 2-7 3-4 4-5 4-10 5-6 6-9 7-8 8-9 8-10

exact/norm bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 6-11 \quad 7-8 \quad 8-9 \quad 8-10 \quad 11-12 \quad 12-15$ 

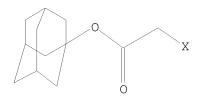
exact bonds : 12-13 13-14

Match level :

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Structure attributes must be viewed using STN Express query preparation.

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100.0% PROCESSED 82 ITERATIONS 4 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 1097 TO 2183 PROJECTED ANSWERS: 4 TO 200

L4 4 SEA SSS SAM L1 NOT L2 NOT L3

=> 11 not 12 not 13 full FULL SEARCH INITIATED 08:28:53 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 1596 TO ITERATE

100.0% PROCESSED 1596 ITERATIONS 31 ANSWERS SEARCH TIME: 00.00.01

L5 31 SEA SSS FUL L1 NOT L2 NOT L3

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L6 149 L5

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- L6 149 ANSWERS CAPLUS COPYRIGHT 2008 ACS on STN
- IC ICM C07C271-22 ICS C07C271-34; C07C275-26; C07C279-18; C07D295-18; A61K031-325; A61P007-02
- CC 34-2 (Amino Acids, Peptides, and Proteins)
  Section cross-reference(s): 1, 63
- TI Synthesis of arginine mimetics as factor Xa inhibitors for use in anti-coagulation or antitumor therapy or as diagnostic material
- ST amino acid amidine deriv prepn factor Xa inhibitor anticoagulant; antitumor factor Xa inhibitor prepn amino acid amidine deriv; guanidine amino acid deriv prepn factor Xa inhibitor anticoagulant

```
ΤТ
     Enzyme kinetics
        (of inhibition; preparation of amino acid amidine or guanidine derivs. for
        use as factor Xa inhibitors for therapeutic or diagnostic use)
IT
     Anticoagulants
     Antitumor agents
        (preparation of amino acid amidine or quanidine derivs. for use as factor Xa
        inhibitors for therapeutic or diagnostic use)
ΙT
     Amino acids, preparation
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
     (Reactant or reagent); USES (Uses)
        (preparation of amino acid amidine or guanidine derivs. for use as factor Xa
        inhibitors for therapeutic or diagnostic use)
ΤТ
     Amines, preparation
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of amino acid amidine or quanidine derivs. for use as factor Xa
        inhibitors for therapeutic or diagnostic use)
ΙT
     9002-05-5, Blood-coagulation factor Xa
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); BIOL (Biological study)
        (preparation of amino acid amidine or quanidine derivs. for use as factor Xa
        inhibitors for therapeutic or diagnostic use)
ΙT
     291535-81-4P
                    291535-82-5P
                                   291535-83-6P
                                                  291535-84-7P
                                                                 291535-91-6P
     291535-95-0P
                    291535-96-1P
                                   291535-97-2P
                                                  291535-99-4P
                                                                 291536-00-0P
     354112-28-0P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of amino acid amidine or guanidine derivs. for use as factor Xa
        inhibitors for therapeutic or diagnostic use)
ΤТ
     354112-29-1 354112-30-4
                                 354112-31-5
                                               354112-32-6
                                                             354112-33-7
     354112-34-8
                   354112-35-9
                                 354112-36-0
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (preparation of amino acid amidine or quanidine derivs. for use as factor Xa
        inhibitors for therapeutic or diagnostic use)
ΙT
     64-04-0, 2-Phenethylamine
                                100-46-9, Benzylamine, reactions
                                                                     107-10-8.
     1-Propanamine, reactions
                                110-89-4, Piperidine, reactions
                                                                   2922-40-9,
     DL-(4-Nitro)phenylalanine
                                4411-25-0, 1-Adamantylisocyanate
                                                                     22888-47-7.
                                 57213-48-6, L-(3-Cyano) phenylalanine
     DL-(4-Cyano)phenylalanine
     62087-82-5
                  63999-80-4, DL-(3-Cyano)phenylalanine
                                                          263396-43-6,
                                291535-98-3
     D-(3-Cyano)phenylalanine
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of amino acid amidine or quanidine derivs. for use as factor Xa
        inhibitors for therapeutic or diagnostic use)
ΤТ
     52117-07-4P
                   108450-75-5P
                                  150447-32-8P
                                                 191872-32-9P
                                                                 291535-79-0P
     291535-80-3P
                    291535-85-8P
                                   291535-88-1P
                                                  291535-89-2P
                                                                 291535-90-5P
     291535-92-7P
                    291535-93-8P
                                   291535-94-9P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of amino acid amidine or guanidine derivs. for use as factor Xa
        inhibitors for therapeutic or diagnostic use)
ΙT
     52117-06-3P 291535-86-9P
                                291535-87-0P
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RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of amino acid amidine or quanidine derivs. for use as factor Xa inhibitors for therapeutic or diagnostic use)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

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ANSWER 141 OF 149 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:509891 CAPLUS

DOCUMENT NUMBER: 75:109891

ORIGINAL REFERENCE NO.: 75:17351a,17354a

TITLE: Substitution reactions of bridgehead derivatives of

adamantane

Kevill, Dennis N.; Weitl, Frederick L.; Sister AUTHOR(S):

Virginia M. Horvath

Dep. Chem., North. Illinois Univ., DeKalb, IL, USA CORPORATE SOURCE: SOURCE:

Preprints - American Chemical Society, Division of

Petroleum Chemistry (1970), 15(2), B66-B70 CODEN: ACPCAT; ISSN: 0569-3799

DOCUMENT TYPE: Journal LANGUAGE: English

In addition to reactions proceeding by conventional ionization mechanisms, nucleophilic substitution reactions considered include the decomposition of 1-adamantyl chloroformate in inert aprotic solvents, the competing solvolysis-decomposition of 1-adamantyl chloroformate in both protic and

aprotic solvents, and the electrophilically assisted reactions of

1-adamantyl halides with alc. AgNO3 and silver perchlorate. The thermal reactions of 1-adamantyl chloroglyoxalate are discussed.

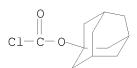
5854-52-4 ΤТ

RL: RCT (Reactant); RACT (Reactant or reagent)

(solvolysis of)

5854-52-4 CAPLUS RN

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



ANSWER 142 OF 149 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:141834 CAPLUS

DOCUMENT NUMBER: 74:141834

ORIGINAL REFERENCE NO.: 74:22923a,22926a

Antibiotic  $7-\alpha$ -aminoacyl cephalosporins TITLE:

Morin, Robert B. INVENTOR(S): PATENT ASSIGNEE(S): Eli Lilly and Co. U.S., 7 pp.
CODEN: USXXAM SOURCE:

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

APPLICATION NO. DATE PATENT NO. KIND DATE \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ ----A 19710202 US 1966-571966 19660812 US 1966-571966 A 19660812 US 3560489 PRIORITY APPLN. INFO.:

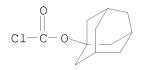
The title compds. were prepared by the acylation of 7-amino-cephalosporanic acid (I). Thus, N-carbobenzoxy-D-phenylqlycine in dry THF was treated with Et3N and ClCO2Bu-iso. I and Et3N in THF and H2O was added to the mixture to give 7-(N-carbobenzoxy-D- $\alpha$ -aminophenylacetamido)cephalospor anic acid (II). H was bubbled into II and 5% Pd-C in 95% EtOH at room temperature to yield 7-(D- $\alpha$ -aminophenylacetamido)cephalosporanic acid. Other analogs were prepared by conventional acylation procedures.

ΙT 5854-52-4P

> RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

5854-52-4 CAPLUS RN

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



ANSWER 143 OF 149 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:124417 CAPLUS DOCUMENT NUMBER: 74.124417

DOCUMENT NUMBER: 74:124417

ORIGINAL REFERENCE NO.: 74:20107a,20110a

TITLE: Competing solvolysis-decomposition of 1-adamantyl

chloroformate

AUTHOR(S): Kevill, Dennis N.; Weitl, Frederick L.

CORPORATE SOURCE: Dep. Chem., North. Illinois Univ., DeKalb, IL, USA

SOURCE: Tetrahedron Letters (1971), (9), 707-10

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal English

GΙ For diagram(s), see printed CA Issue.

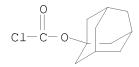
In alc. solns. I (X = O2CC1) undergoes 2 competing reactions: solvolysis with the formation of 1-adamantyl alkyl carbonates and decomposition to I carbonium ion (II), Cl-, and CO2. The decomposition is followed by the recombination of II with Cl- and by II reaction with the solvent giving an ether. The ethers are not formed from the carbonates. The activation entropies of I (X = O2CC1) solvolysis-decomposition are 16-20 entropy units more pos. than the solvolysis entropies of I (X = halide) in alcs., due to the loss of CO2 preceeding or concurrent with II formation and I ionization. In dioxane, EtOH, MeOH, or acetone the solvolysis amts. to 55.5-80% of I solvolysis-decomposition process.

5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent) (solvolysis of, mechanism of)

5854-52-4 CAPLUS RN

Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L6 ANSWER 144 OF 149 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:12327 CAPLUS

DOCUMENT NUMBER: 74:12327

ORIGINAL REFERENCE NO.: 74:1993a,1996a

TITLE: Solvolysis of 1-adamantyl chloroformate and related

compounds in protic and aprotic media

AUTHOR(S): Weitl, Frederick L.

CORPORATE SOURCE: Northern Illinois Univ., DeKalb, IL, USA

SOURCE: (1969) 167 pp. Avail.: 70-3456

From: Diss. Abstr. Int. B 1970, 30(9), 4070

DOCUMENT TYPE: Dissertation

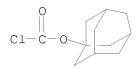
LANGUAGE: English

AB Unavailable IT 5854-52-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(solvolysis of) 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L6 ANSWER 145 OF 149 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1969:58138 CAPLUS

DOCUMENT NUMBER: 70:58138

ORIGINAL REFERENCE NO.: 70:10937a,10940a

TITLE: 1-Adamantyl- and 1-adamantylmethyl carbonates of

testosterone

INVENTOR(S): Boswell, George A., Jr.

PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co.

SOURCE: S. African, 27 pp.

CODEN: SFXXAB

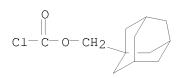
DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ZA 6706588		19680308	ZA	
DE 1668559			DE	
FR 1579481			FR	
FR 7327			FR	

GB 1187611 GB GB 1187659 GB GB GB 1187660 19690318 US 19661129 US 3433813 PRIORITY APPLN. INFO.: US 19661129 MARPAT 70:58138 OTHER SOURCE(S): Anabolic-androgenic agents were prepared 19-Nortestosterone (25.0 g.) in 100 cc. CH2Cl2 was shaken with 75 q. carbonyl fluoride under pressure 10 hrs. at 20  $\pm$  2° to give 23.4 q. 19-nortestosterone fluoroformate (I), m. 83-3.5°;  $[\alpha]$ 23D 34° (c 1.47, CHCl3). Similarly prepared was testosterone fluoroformate, m. 104-6°,  $[\alpha]23D$  $86^{\circ}$  (c 2.33, CHCl3). I (1.0 g.) and 10 g. 1-adamantanemethanol in 75 cc. benzene containing 0.5 cc. pyridine was refluxed under N 24 hrs. to give 0.646 g. 19-nortestosterone 1'-adamantylmethyl carbonate, m. 142.5-3.5°,  $[\alpha]$ 24D 42° (c 1.65, CHCl3). Similarly prepared was testosterone 1'-adamantylmethyl carbonate, m. 158-9°,  $[\alpha]$  24D 79° (c 1.32, CHCl3). Similarly prepared, from 1-adamantyl chloroformate (m. 52-3°; from 1-adamantol and phosgene) was 19-nortestosterone 1'-adamantyl carbonate, m. 167°,  $[\alpha]24D$  35° (c 1.43, CHCl3). Phosgene was bubbled through 400 cc. Et20 2 hrs. at 0°, the solution diluted to 800 cc. with Et20, 100 g. adamantane-1-methanol added, and the mixture stirred 24 hrs. to give 1-adamantylmethyl chloroformate (II), m.  $54-5^{\circ}$ . Testosterone (13.0 g.) in benzene was refluxed with 12 g. II and 10 cc. pyridine 40 hrs. to give 15 g.  $17\beta$ -hydroxy-4-androsten-3-one 1'-adamantylmethyl carbonate, m.  $157-8^{\circ}$ . Ir and uv spectral data were given for the compds. ΙT 21317-84-0P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of) 21317-84-0 CAPLUS RN CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-ylmethyl ester (CA INDEX



ANSWER 146 OF 149 CAPLUS COPYRIGHT 2008 ACS on STN 1969:46538 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 70:46538

ORIGINAL REFERENCE NO.: 70:8719a,8722a

TITLE: Kinetics and mechanism of the decomposition of

1-adamantyl chloroformate

Kevill, Dennis N.; Weitl, Frederick L. AUTHOR(S): CORPORATE SOURCE: Northern Illinois Univ., DeKalb, IL, USA

SOURCE: Journal of the American Chemical Society (1968),

90(23), 6416-20 CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal LANGUAGE: English

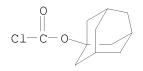
OTHER SOURCE(S): CASREACT 70:46538 AB 1-Adamantyl chloroformate decompose in decane or in the molten phase to give exclusively 1-adamantyl chloride. In benzene a very small amount of acid formation occurs, 0.5% at  $54.2^{\circ}$ , and a 94% yield of 1-adamantyl chloride. Increased, but still small amts. of acid production accompany decomposition in nitrobenzene and mixts. of nitrobenzene with benzene. From a reaction with Aq hexafluoroantimonate in nitrobenzene, 1-(m-nitrophenyl) adamantane was isolated and characterized. At 54.2°, the relative rates of decomposition of 0.06M solns. in decane, benzene, and nitrobenzene are 1:1260:-205,000. In benzene, the entropy of a citation is -12.0 entropy units and slightly less neg. values are obtained in nitrobenzene and benzene-nitrobenzene mixts.; similar values were reported for SN1 solvolyses of 1-adamantyl halides. In nitrobenzene, tetra-n-butylammonium chloride modestly accelerates the decomposition, and the extent of acid formation decreases in a manner consistent with the rate of solvolysis in the absence of added chloride (3.0% at 15.0°) being equal to the rate of production of dissociated 1-adamantyl carbonium ions. 5854-52-4 TΤ

RL: PRP (Properties)

(dissociation of, kinetics of)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L6 ANSWER 147 OF 149 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1968:451736 CAPLUS

DOCUMENT NUMBER: 69:51736 ORIGINAL REFERENCE NO.: 69:9643a,9646a

TITLE: 1-Adamantyl carbazates

INVENTOR(S): Gerzon, Koert; Krumkalns, Eriks V.

PATENT ASSIGNEE(S): Lilly, Eli and Co.

SOURCE: U.S., 4 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3369041	А	19680213	US 1967-615356	19670213
PRIORITY APPLN. INFO.:			US 1967-615356 A	19670213

GI For diagram(s), see printed CA Issue.

AB I, where R is Cl and n is 1 and 2, are treated with N2H4 to give the title compds. Thus, a mixture of 21 g. 1-bromoadamantane, 50 ml. 85% N2H4.H2O, and 150 ml. EtOH is refluxed 10 hrs. to give 12.6 g. 1-hydroxyadamantane (II), m. 220°. A mixture of 8 g. II, 6 g. pyridine, and 200 ml. ether is added in 1 hr. to a solution of 20 g. COC12 in 100 ml. C6H6 at 20° to give 1-adamantyl chloroformate (III), m. 46-7°. Similarly prepared are (m.p. given): 3,5-dimethyl-1-adamantyl chloroformate,

5-10°; 3-homoadamantyl chloroformate, <0°. A solution of 75 mg. III in 25 ml. C6H6 is saturated 1 hr. with NH3 gas to give 1-adamantyl carbamate I (n = 1, R = NH2, R1 = H), m. 170-1°. Similarly prepared are (m.p. given): I (n = 1, R = NHMe, R1 = H), 127-9°; I (n = 1, R = adamantylamino, R1 = H), 305-10°. A solution of 2 g. III in 150 ml. C6H6 is slowly added to a solution of 2.5 g. N2H4 in 20 ml. tert-BuOH and the mixture is agitated 2 hrs. and worked up to give 1-adamantyl carbazate [I (n = 1, R = NHNH2, R1 = H)] (IV), m. 141-2°. Similarly prepared are (m.p. given): I (n = 1, R = NHNH2, R1 = Me), 74-5°; V, -; I (n = 2, R = NHNH2, R1 = H), 67°. A mixture of 100 mg. IV, 1 ml. 2N HCl, and 2 ml. Me2CO is treated with 40 mg. NaNO2, the mixture is agitated until the NaNO2 is dissolved, 2 ml. water is added, and the water-insol. material obtained is extracted with hexane to give I (n = 1, R = N3, R1 = H). A solution

of Na D-phenylgycinate is prepared from 151 mg. D-phenylglycine, 2 ml. water, and 1.2 ml. N NaOH at  $0^{\circ}$ , a solution of 225 mg. III in a mixture of 2.5 ml. dioxane and 1 ml. ether is added in 40 min. as the mixture is kept alkaline (N NaOH), the mixture is extracted with ether, and the aqueous phase is

cooled to 0° and worked up to give 228 mg. N-(1-adamantyloxycarbonyl)-D-phenylglycine, m. 119-21°. Similarly prepared is I (n = 1, R = NHCH2CO2H, R1 = H), m. 141-2.5° (hexane).

5854-52-4P 10144-56-6P
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

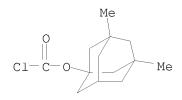
RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

ΙT

RN 10144-56-6 CAPLUS

CN Carbonochloridic acid, 3,5-dimethyltricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



L6 ANSWER 148 OF 149 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:499665 CAPLUS

DOCUMENT NUMBER: 65:99665

ORIGINAL REFERENCE NO.: 65:18683h,18684a-b TITLE: Adamantyl compounds PATENT ASSIGNEE(S): Eli Lilly & Co.

SOURCE: 8 pp.

DOCUMENT TYPE: Patent LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

----NL 6600403 19660722 NL 1966-403 19660112
PRIORITY APPLN. INFO.: US 19650121

AB New adamantyloxycarbonyl derivs. (I) of  $\alpha$ -amino acids were prepared I includes derivs. of naturally occurring  $\alpha$ -amino acids and is a suitable blocking group in synthesis of peptides, penicillins, or cephalosporins. This blocking group can be removed with F3CCO2H, anhydrous HCl, or by other known methods. Thus, to 20 g. COCl2 in 100 ml. anhydrous C6H6, a mixture of 8 g. 1-hydroxyadamantane, 6 g. pyridine, and 200 ml. ether was added dropwise at .apprx.20° during 1 hr. to give 1-adamantyl chloroformate, m. 46-7°. Similarly, 3,5-dimethyl-1-hydroxyadamantyl chloroformate, m. .apprx.5-10°, and

3-hydroxyhomoadamantyl chloroformate, m. .apprx.0°, were prepared To 151 mg. D-phenylglycine in 2 ml. H2O and 1.2 ml. N NaOH, a solution of 225 mg. 1-adamantyl chloroformate in 2.5 ml. dioxane and 1 ml. ether was added in 5 portions during 40 min. After addition of 1 ml. N NaOH, the reaction mixture was extracted with ether, acidified with 85% H3PO4 to pH 4.5, and extracted

with ether to give N-(1-adamantyloxycarbonyl)-D-phenylglycine, m.

119-20°. Also prepared was the glycine analog, m. 141-2.5°.

IT 5854-52-4P, Formic acid, chloro-, 1-adamantyl ester

10144-56-6P, 1-Adamantanol, 3,5-dimethyl-, chloroformate

10144-78-2P, 1-Adamantanol, 3-methyl-, chloroformate

RL: PREP (Preparation)

(preparation of)

RN 5854-52-4 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

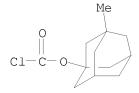
RN 10144-56-6 CAPLUS

CN Carbonochloridic acid, 3,5-dimethyltricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

RN 10144-78-2 CAPLUS

CN Carbonochloridic acid, 3-methyltricyclo[3.3.1.13,7]dec-1-yl ester (CA

INDEX NAME)



L6 ANSWER 149 OF 149 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:104659 CAPLUS

DOCUMENT NUMBER: 64:104659

ORIGINAL REFERENCE NO.: 64:19757h,19758a

TITLE: Adamantyloxycarbonyl, a new blocking group.

Preparation of 1-adamantyl chloroformate AUTHOR(S): Haas, W. L.; Krumkalns, E. V.; Gerzon, K.

CORPORATE SOURCE: Lilly Res. Labs., Eli Lilly & Co., Indianapolis, IN

SOURCE: Journal of the American Chemical Society (1966),

88(9), 1988-92

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal LANGUAGE: English

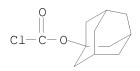
OTHER SOURCE(S): CASREACT 64:104659

AB 1-Adamantyl chloroformate was prepared from 1-adamantanol and COC12. The chloroformate was allowed to react with amino acids to give the corresponding 1-adamantyloxycarbonyl derivs. Several of them could be obtained in crystalline form, while the corresponding tert-butyloxycarbonyl derivs. have either not been reported or have been described as oils or amorphous solids. The adamantyloxycarbonylamino acids are cleaved by acid-catalyzed solvolysis with CF3CO2H to yield the free amino acids. Adamantyl chloroformate forms mixed carbonic-carboxylic anhydrides with Et3N salts of N-protected amino acids which give peptide derivs. on reaction with amino acid esters.

IT 5854-52-4P, Formic acid, chloro-, 1-adamantyl ester

RL: PREP (Preparation)
(preparation of)
5854-52-4 CAPLUS

RN 5854-52-4 CAPLUS CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)



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STRUCTURE FILE UPDATES: 3 MAR 2008 HIGHEST RN 1006431-93-1 DICTIONARY FILE UPDATES: 3 MAR 2008 HIGHEST RN 1006431-93-1

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

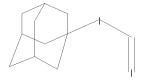
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http://www.cas.org/support/stngen/stndoc/properties.html

=>

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chain nodes: 11 12 13

ring nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

6-11 11-12 12-13

ring bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10$ 

exact/norm bonds :

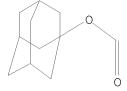
 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 6-11 \quad 7-8 \quad 8-9 \quad 8-10 \quad 11-12 \quad 12-13$ 

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS 12:CLASS 13:CLASS

#### L7 STRUCTURE UPLOADED

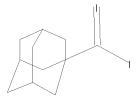
=> d L7 HAS NO ANSWERS L7 STR



Structure attributes must be viewed using STN Express query preparation.

=>

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chain nodes :

11 12 13 ring nodes:

1 2 3 4 5 6 7 8 9 10

chain bonds :

6-11 11-12 11-13

ring bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10$ 

exact/norm bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10 \quad 11-12 \quad 11-13$ 

exact bonds :

6-11

Match level :

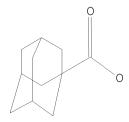
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS 12:CLASS 13:CLASS

L8 STRUCTURE UPLOADED

=> d

L8 HAS NO ANSWERS

L8 STR



Structure attributes must be viewed using STN Express query preparation.

=> 11 not 17 not 18 full FULL SEARCH INITIATED 08:30:48 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 1596 TO ITERATE

100.0% PROCESSED 1596 ITERATIONS 25 ANSWERS

SEARCH TIME: 00.00.01

L9 25 SEA SSS FUL L1 NOT L7 NOT L8

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=> 19

L10 40 L9

=> d ibib abs hitstr 1-40

L10 ANSWER 1 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:935060 CAPLUS

DOCUMENT NUMBER: 147:288278

TITLE: Preparation of adamantane based molecular glass photoresists for sub-200 nm immersion lithography

INVENTOR(S): Tanaka, Shinji; Ober, Christopher K.

PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., USA; Idemitsu Kosan

Co., Ltd.

SOURCE: PCT Int. Appl., 41pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT N		KIND		DATE A			APPL	ICAT	ION I		DATE					
WO 20070	9478	3 4		A1		2007	0823	1	wo 2	006-	JS53	78		2	0060	216
W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KM,	KN,	KP,	KR,
	KΖ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,
	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,
	SG,	SK,	SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,
	VN,	YU,	ZA,	ZM,	ZW											
RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
	IS,	ΙΤ,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG,	BW,	GH,
	GM,	ΚE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,
	KG,	KΖ,	MD,	RU,	ТJ,	MT										

PRIORITY APPLN. INFO.: WO 2006-US5378 20060216

AB Disclosed are glass photoresists generated from adamantane derivs. containing acetal and/or ester moieties as novel high-performance photoresist materials. Some of the disclosed adamantane-based glass resists have a tripodal structure and other disclosed adamantane-based glass resists include one or more cholic groups. The disclosed adamantane derivs. can be synthesized from starting materials which are com. available. By way of example only, one of many disclosed amorphous glass photoresists has the following structure: GR-5 Adamantane-1,3,5-triyltris(oxymethylene) tricholate.

IT 946578-92-3

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of adamantane based mol. glass photoresist for immersion

lithog.)
RN 946578-92-3 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1,3,5-tris(chloromethoxy)- (CA INDEX NAME)

C1CH<sub>2</sub>-O O-CH<sub>2</sub>C1

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:101708 CAPLUS

DOCUMENT NUMBER: 144:193289

TITLE: Fluorine-containing polymers with good transparency

for resist compositions and resist protective film

compositions

INVENTOR(S): Takebe, Yoko; Eda, Masataka; Yokokoji, Osamu; Sasaki,

Takashi

PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

P.F	PATENT NO.					KIND DATE			APPLICATION NO.						DATE			
WC	2006	0114	 27		A1		2006	0202		WO 2	 005-	JP13	507		2	0050	722	
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		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	ΚP,	KR,	KΖ,	
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	
		NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	
		SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	YU,	
		ZA,	ZM,	ZW														
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,	
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	
		CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,	
		GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,	
		KG,	KΖ,	MD,	RU,	ΤJ,	TM											
EE	1772	468			A1	·	2007	0411		EP 2	005-	7661	46		2	0050	722	
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		IS,	IT,	LI,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR		
CN	1 1993	393			A	·	2007	0704	·	CN 2	005-	8002	5573		2	0050	722	
US	2007	1548	44		A1		2007	0705		US 2	007-	6269	13		2	0070	125	
	2007															0070		
IORIT	ORITY APPLN. INFO.:								JP 2	004-	2233	63		A 2	0040	730		
										JP 2	004-	3405	95		A 2	0041	125	
										JP 2	005-	1510	28		A 2	0050	524	
										WO 2	005-	JP13	507		W 2	0050	722	
Ti	Title polymers are obtain					ined	ned by ring			mina	log	ion	of a					

AB Title polymers are obtained by ring-forming polymerization of a fluorine-containing

diene CF2:CFCF2C(CF3)(OR1)(CH2)nCR2:CHR3, wherein R1 = H, C $\leq$ 20 alkyl, or (CH2)aCOOR4; R2, R3 = independently H or C $\leq$ 12 alkyl; R4 =

H or C $\leq$ 20 alkyl; a = 0 or 1; and n = 0 or 2 (when n = 0,  $\geq$ 1 of R1, R2, R3  $\neq$  H). Thus, 254 g 68% 4,5-dichloro-1,1,1,3,3,4,5,5- octafluoro-2-pentanone solution was mixed with 1 M vinylmagnesium bromide at 0° for 60 min and at room temperature for 16 h, 234 g og the resulting 5,6-dichloro-4,4,5,6,6-pentafluoro-3-(trifluoromethyl)-1-hexen-3-ol was mixed with 47 g zinc and stirred, 20 g zinc was added therein and stirred for 36 h to give 4,4,5,6,6-pentafluoro-3-(trifluoromethyl)-1,5-hexadien-3-ol, 4.50 g of which was polymerized in the presence of 9.02 g 3% perfluorobutyryl peroxide at 20° for 18 h to give a cyclized fluoropolymer with weight average mall weight 18,200 polydispersity 2.19 and

fluoropolymer with weight average mol. weight 18,200, polydispersity 2.19, and glass

transition temperature 86°, 1 g of the resulting polymer was dissolved in 10 g 2-heptanone, filtered, applied on a silicon wafer, and dried at  $100^\circ$  for 90 s to give a resist protective coating, showing light transmittance 99.3% at 193 nm and 79.4% at 157 nm.

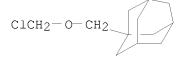
IT 720682-48-4DP, reaction products with hydroxy-containing cyclic fluoropolymers

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(fluorine-containing polymers with good transparency for resist compns. and resist protective film compns.)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1314037 CAPLUS

DOCUMENT NUMBER: 144:52079

TITLE: Photoresists comprising polymers derived from fluoroalcohol-substituted polycyclic monomers

INVENTOR(S): Crawford, Michael Karl; Tran, Hoang Vi; Schadt, Frank

L., III; Zumsteg, Frederick Claus, Jr.; Feiring,

Andrew Edward; Fryd, Michael

PATENT ASSIGNEE(S): E.I. Dupont De Nemours and Company, USA

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	PATENT NO.					KIND DATE			APPLICATION NO.							DATE			
WO 2005		A2 A3		20051215			WO 2005-US17325						20050517						
W:	W: AE, AG, AL, AM, AC CN, CO, CR, CU, CC GE, GH, GM, HR, HU		CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,					

LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2007207413 20070906 US 2006-578278 Α1 20061011 PRIORITY APPLN. INFO.: US 2004-572734P Ρ 20040520 WO 2005-US17325 W 20050517 MARPAT 144:52079 OTHER SOURCE(S): GΙ

CH<sub>2</sub>OCH<sub>2</sub>C (CF<sub>3</sub>)<sub>2</sub>OH CH<sub>2</sub>OCH<sub>2</sub>C (CF<sub>3</sub>)<sub>2</sub>OH I

The invention relates to unsatd. polycyclic compds. containing two fluoroalc. substituents. The invention also relates to homopolymers and copolymers derived from such unsatd. polycyclic compds. The copolymers are useful for photoimaging compns. and, in particular, photoresist compns. (pos.-working and/or neg.-working) for imaging in the production of semiconductor devices. The polymers are especially useful in photoresist compns. having high UV transparency (particularly at short wavelengths, e.g., 157 nm) which are useful as base resins in resists and potentially in many other applications. A typical polymer was manufactured by radical polymerization of 67.5 g fluorodiol I with 30 g tetrafluoroethylene in 1,1,3,3-pentafluorobutane.

720682-48-4DP, reaction products with polymers based on polycyclic monomers having 2 fluoroalc. groups
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photoresists comprising polymers derived from polycyclic monomers

(photoresists comprising polymers derived from polycyclic monomers having 2 fluoroalc. groups)  $\,$ 

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)

C1CH2-O-CH2

L10 ANSWER 4 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1241028 CAPLUS

DOCUMENT NUMBER: 143:485833

TITLE: Adamantane derivative, method for producing same and

photosensitive material for photoresist

Ito, Katsuki; Ono, Hidetoshi; Tanaka, Shinji; INVENTOR(S):

Hatakeyama, Naoyoshi; Miyamoto, Shinji; Matsumoto,

Nobuaki

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

P	PATENT NO.						KIND DATE				APPLICATION NO.						DATE		
W	O 2005	11109	 97		A1 200511			1124	•	WO 2	005-	 JP89	 43		2	 0050	 517		
	W: AE, AG, AL,				AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,		
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,		
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KP,	KR,	KΖ,		
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MΖ,	NA,		
		NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,		
		SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,		
		ZA,	ZM,	ZW															
	RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,		
		AZ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,		
		EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,		
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,		
		MR,	NE,	SN,	TD,	ΤG													
PRIORI	RIORITY APPLN. INFO.:							JP 2004-147946						A 20040518					
OTHER	THER SOURCE(S):				MARPAT 143:485833														

GΙ

AB Disclosed is an adamantane derivative which is useful as a monomer for a functional resin such as a photosensitive resin that is used in the fields of photolithog. Also disclosed are a method for efficiently producing such an adamantane derivative and a photosensitive material for photoresists containing a polymer obtained from such an adamantane derivative Specifically disclosed is an adamantane derivative which is characterized by having a structure represented by the following general formula I wherein R1 represents a hydrogen atom, a Me group or a trifluoromethyl group; Y represents an alkyl group having 1-10 carbon atoms, a halogen atom or a hydroxyl group, or alternatively two Ys may combine together to form =0, and a plurality of Ys may be the same as or different from one another;  $\boldsymbol{k}$ represents an integer of 0-15; and m represents 0 or 1. Also specifically disclosed are a method for producing an adamantane derivative represented by the above general formula (I) which is characterized by reacting a halomethyl adamantyl (methyl) ether with a (meth)acrylic acid or an acid anhydride thereof, and a photosensitive material for photoresists containing a polymer obtained from such an adamantane derivative 720682-48-4 ΙT

RL: RCT (Reactant); RACT (Reactant or reagent)

(adamantane derivative for photoresist composition)

720682-48-4 CAPLUS RN

Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME) CN

C1CH2-0-CH2

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 3 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:982948 CAPLUS

DOCUMENT NUMBER: 143:275623

TITLE: Photoresists having excellent dry etching resistance

and high sensitivity and manufacture of semiconductor

devices therewith

INVENTOR(S): Otoguro, Akihiko; Irie, Shigeo; Fujii, Kiyoshi;

Takebe, Yoko; Eda, Masataka; Yokokoji, Osamu

Semiconductor Leading Technologies Inc., Japan; Asahi PATENT ASSIGNEE(S):

Glass Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

Patent DOCUMENT TYPE: LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE ---- ------\_\_\_\_\_ A 20050908 JP 2004-48008 JP 2004-48008 JP 2005241737 20040224 PRIORITY APPLN. INFO.: The photoresists comprise cyclic polymerization products of fluorodiene CF2:CFCH2CHQCH2CR1:CHR2 [R1, R2 = H, C $\leq$ 3 (fluoro)alkyl, C $\leq$ 6 alicyclic hydrocarbyl; Q = (CH2)nC(CF3)2OR3 [n = 0, 1; R3 = H, etheric O-containing  $C \le 5$  alkyl,  $C \le 6$  alkoxycarbonyl, CH2R4 (R4 =  $C \le 6$  alkoxycarbonyl)], (CH2)mCO2R5 (m = 0, 1; R5 = H,  $C \le 5$ alkyl)], radiation-sensitive acid generators, organic solvents, and optionally amines. The photoresists are pasted on substrates, exposed to 150-250-nm light through reticles, baked, and developed to form patterns. Semiconductor process involving dry etching of wafers through the thus-formed resist masks is further claimed. ΤT

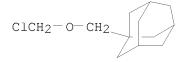
720682-48-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(F2 laser-sensitive photoresists containing cyclopolymd. fluorodienes and having good dry etching resistance)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)



L10 ANSWER 6 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:962319 CAPLUS

DOCUMENT NUMBER: 143:257069

TITLE: Polymer compound, photoresist composition containing

such polymer compound, and method for forming resist

pattern

INVENTOR(S): Ogata, Toshiyuki; Matsumaru, Syogo; Kinoshita, Yohei;

Hada, Hideo; Shiono, Daiju; Shimizu, Hiroaki; Kubota,

Naotaka

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 91 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

Ι	PATENT NO.				KIND DATE			APPLICATION NO.										
1	wo	2005	0804	 73		A1		20050901		WO 2005-JP1228								
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DΖ	, EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS	, KE,	KG,	KP,	KR,	KΖ,	LC,	LK,
			LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK	, MN,	MW,	MX,	MZ,	NA,	NΙ,	NO,
			NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC	, SD,	SE,	SG,	SK,	SL,	SY,	ΤJ,
			TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ	, VC,	VN,	YU,	ZA,	ZM,	ZW	
		RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	MZ,	NA,	SD	, SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
			ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT	, BE,	BG,	CH,	CY,	CZ,	DE,	DK,
			EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	ΙS	, IT,	LT,	LU,	MC,	NL,	PL,	PT,
			RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG	, CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,
			MR,	ΝE,	SN,	TD,	ΤG											
Ċ	JP 2006096965			A 20060413				JP 2004-316960				20041029						
I	EP 1717261			A1 20061102			EP 2005-709454				20050128							
		R:	DE,	FR														
(	CN	1918	217			A		2007	0221		CN	2005-	8000	4964		2	0050	128
PRIOR:	ORITY APPLN. INFO.:			.:					JP 2004-45522				A 2	0040	220			
											JΡ	2004 - 1	1345	85		A 2	0040	428
											JΡ	2004 - 1	1794	75		A 2	0040	617
											JΡ	2004-	2524	74		A 2	0040	831
											JP	2004-	3169	60		A 2	0041	029
											WO	2005-	JP12.	28	•	₩ 2	0050	128
AR I	ni c	0100	i ba	c a 1	001	mar /	comp	ound	whi.	ch a	nah	Jac +	o ob	+ a i n	a h	iahl	77 00	nei+i,77

AB Disclosed is a polymer compound which enables to obtain a highly sensitive photoresist composition which forms a fine pattern with excellent resolution and

good rectangular shape and is capable of obtaining good resist characteristics even when the acid generated by an acid generator is weak. Also disclosed are a photoresist composition using such a polymer compound and

method for forming a resist pattern using such a photoresist composition The

а

ΙT

 $\hbox{photoresist composition and resist pattern-forming method use a polymer compound}$ 

having an alkali-soluble group (i) which is at least one substituent selected from an alc. hydroxyl group, a carboxyl group and a phenolic hydroxyl group and protected by an acid-cleavable dissoln. inhibiting group (ii) represented by general formula -CH2-O-(-CH2)n-R1 wherein R1 represents an alicyclic group having 20 or less carbon atoms which may have an oxygen, nitrogen, sulfur or halogen atom; and n represents 0 or an integer of 1-5. 720682-48-4P

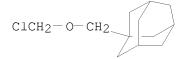
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(polymer compound, photoresist composition containing such polymer compound, and

method for forming resist pattern)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:591346 CAPLUS

DOCUMENT NUMBER: 143:77880

TITLE: Preparation of (halomethoxyalkyl)adamantanes INVENTOR(S): Ono, Hidetoshi; Hori, Kenji; Tanaka, Shinji;

Hatakeyama, Naoyoshi

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

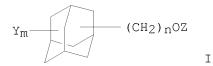
CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005179300	A	20050707	JP 2003-425065	20031222
PRIORITY APPLN. INFO.:			JP 2003-425065	20031222
OTHER SOURCE(S):	CASREA	ACT 143:77880	); MARPAT 143:77880	
GI				



ΙT

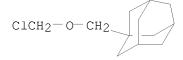
AB Title compds. I [Y = C1-10 (halo)alkyl, halo, heteroatom-containing group; Z = CH2X; X = halo; m = 0-15; n = 0-10] are prepared by reaction of I (Z = H) with HCHO and hydrogen halides using solvents showing water solubility (at reaction temperature)  $\leq 5$  weight%. 1-Adamantylmethanol was treated with paraformaldehyde and HCl in CH2Cl2 at 30° for 2 h to give 1-(chloromethoxymethyl)adamantane with 99% selectivity.

720682-48-4P RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of (halomethoxyalkyl) adamantanes from adamantanealkanols, HCHO, and hydrogen halides)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)



L10 ANSWER 8 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1079728 CAPLUS

DOCUMENT NUMBER: 142:38661

TITLE: Production of adamantyl vinyl ethers useful as

monomers for photosensitive resins

INVENTOR(S): Hatakeyama, Naoyoshi; Tanaka, Shinji; Ono, Hidetoshi;

Kodoi, Kouichi

PATENT ASSIGNEE(S): Idemitsu Petrochemical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 19 pp.

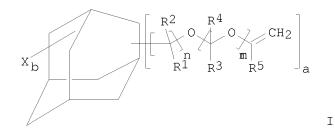
CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	PATENT NO.			KIND DATE		APPLICATION NO.					DATE							
						_									-			
EP	1486	480			A1		2004	1215		EP 2	004-	1323	1		2	0040	604	
	R:						ES,											
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	PL,	SK,	HR
JP	2005	0230	66		А		2005	0127	1	JP 2	004-	1592	76		2	0040	528	
KR	2004	10563	14		А		2004	1216		KR 2	004-	4166	4		2	0040	608	
US	2005	00439	91		A1		2005	0106		US 2	004-	8624	23		2	0040	608	
PRIORIT	Y APP	LN.	INFO	. :					1	JP 2	003-	1633	20		A 2	0030	609	
OTHER S	OURCE	(S):			MARI	PAT	142:	38663	1									
GI																		



An adamantyl vinyl ether has the general formula (I), where each XAΒ independently represents hydrogen, halogen, C1-C10-alkyl optionally containing a heteroatom, hydroxy, C1-C8-alkoxy, carboxy, COOR with R being C1-C8-alkyl, or a keto group formed by two X's; each R1, R2, R3, R4 independently represents hydrogen, halogen, or C1-C10-alkyl optionally containing a heteroatom; each R5 independently represents hydrogen, halogen, or C1-C3-alkyl optionally containing a heteroatom; m and n are independently integers from 0 to 10; a is an integer from 1 to 4; b is an integer from 12 to 15; a+b is 16. The following structures are excluded: a structure in which only 1 to 3 vinyloxy groups are bonded to a bridge head position of the adamantyl group, a structure in which only one vinyloxymethyl group, vinyloxyethyl group or vinyloxypropyl group is bonded to a bridge head position of the adamantyl group, and a structure in which only a vinyloxy group and a hydroxy group are bonded to a bridge head position of the adamantyl group. The adamantyl vinyl ethers are useful as monomers for production of functional resins, such as photosensitive resins for photolithog., fireproofing additives, medical and agricultural intermediates. Thus, 1-[(2-chloroethoxy)methoxy]adamantane was produced in 83.3% yield by refluxing 2-chloroethyl chloromethyl ether (1.55 g, 12 mmol) and 1-adamantanol (1.52 g, 10 mmol) in THF in the presence of triethylamine (1.52 g, 15 mmol) for 8 h. An adamantyl vinyl ether, 1-[(vinyloxy)methoxy]adamantane, was produced in 85.9% yield by refluxing 1-[(2-chloroethoxy)methoxy]adamantane (2.45 g, 10 mmol) and potassium tert-butoxide (1.68 g, 15 mmol) in THF for 2 h.

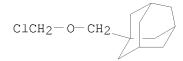
IT 720682-48-4P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(production of adamantyl vinyl ethers useful as monomers for photosensitive resins)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 9 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2004:973343 CAPLUS

DOCUMENT NUMBER: 142:113591

TITLE: Second Generation Fluorous DEAD Reagents Have Expanded

Scope in the Mitsunobu Reaction and Retain Convenient

Separation Features

AUTHOR(S): Dandapani, Sivaraman; Curran, Dennis P.

CORPORATE SOURCE: Department of Chemistry, University of Pittsburgh,

Pittsburgh, PA, 15260, USA

SOURCE: Journal of Organic Chemistry (2004), 69(25), 8751-8757

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

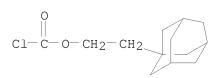
OTHER SOURCE(S): CASREACT 142:113591

A first generation fluorous analog of di-Et azodicarboxylate (DEAD) [F3C(CF2)5CH2CH2O2CN:NCO2CH2CH2(CF2)5CF3, F-DEAD-1] gives lower yields of products than diisopropyl azodicarboxylate (DIAD) in Mitsunobu reactions involving hindered alcs. or less acidic pronucleophiles such as phenols. A variety of fluoroalkyl hydrazinedicarboxylates are prepared and their retention times on fluorous resin-based HPLC are determined; two of the tested hydrazinecarboxylates are converted to the corresponding azodicarboxylate reagents, F-DEAD-2 [C8F17(CH2)302CN:NCO2CMe3] and F-DEAD-3 [C6F13(CH2)302CN:NCO2(CH2)3C6F13]. Mitsunobu reactions using either F-DEAD-2 and F-DEAD-3 and the fluorinated triphenylphosphine 4-Ph2PC6H4CH2CH2(CF2)7CF3 (F-TPP) are effective for a variety of alcs. and nucleophiles such as phenols, sulfonamides, and carboxylic acids; the yields of the corresponding Mitsunobu reactions using DIAD and triphenylphosphine give products in comparable or higher yields. coproducts formed in reactions with F-DEAD-2 and F-TPP can be separated easily by fluorous chromatog., while Mitsunobu reactions using F-DEAD-3 and F-TPP as reagents can be separated by fluorous solid phase extraction 766546-16-1 ΤТ

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and fluorous HPLC retention times of fluoroalkyl
hydrazinedicarboxylates and their use in the preparation of
second-generation fluorous azodicarboxylates for Mitsunobu reactions)

RN 766546-16-1 CAPLUS

CN Carbonochloridic acid, 2-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 10 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:725497 CAPLUS

DOCUMENT NUMBER: 141:395095

TITLE: Solvent-Equilibrated Ion Pairs from Carbene

Fragmentation Reactions

AUTHOR(S): Moss, Robert A.; Zheng, Fengmei; Fede, Jean-Marie;

Johnson, Lauren A.; Sauers, Ronald R.

CORPORATE SOURCE: Department of Chemistry and Chemical Biology, Rutgers

The State University of New Jersey, New Brunswick, NJ,

08903, USA

SOURCE: Journal of the American Chemical Society (2004),

126(39), 12421-12431

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:395095

[R+ OC Cl-] ion pairs were generated in methanol/dichloroethane solns., with R+ as the 1-bicyclo[2.2.2]octyl, 1-adamantyl, or 3-homoadamantyl cation. Ion pairs were produced either by the direct fragmentation of alkoxychlorocarbenes (ROCCl), with R = 1-bicyclo[2.2.2]octyl, 1-adamantyl, or 3-homoadamantyl, or by the ring expansion-fragmentation of R'CH2OCCl, with R' = 1-norbornyl, 3-noradamantyl, or 1-adamantyl. Correlations of the [ROMe]/[RC1] product ratios as a function of the mole fraction of MeOH in dichloroethane showed that the homoadamantyl chloride ion pairs, produced by either the direct or ring expansion-fragmentations, were identical, solvent- and anion-equilibrated, and precursor independent. Laser flash photolysis expts. gave 20-30 ps as the time required for solvent equilibration and precursor independence. Methanol/chloride selectivities of the (less-stable) 1-adamantyl chloride and 1-bicyclo[2.2.2]octyl chloride ion pairs were not independent of their ROCC1 or R'CH2OCC1 precursors. Computational studies provided transition states for the fragmentations and for the structures of the ion pairs. 182802-27-3 433713-18-9 ΙT

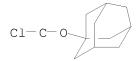
RL: CPS (Chemical process); FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent) (solvent-equilibrated ion pairs from carbene fragmentation reactions)

RN 182802-27-3 CAPLUS

CN Methylene, chloro(tricyclo[3.3.1.13,7]dec-1-ylmethoxy)- (9CI) (CA INDEX NAME)

RN 433713-18-9 CAPLUS

CN Methylene, chloro(tricyclo[3.3.1.13,7]dec-1-yloxy)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

RECORD. ALL CITATIONS AVAILABLE IN THE RE FOR

L10 ANSWER 11 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:641925 CAPLUS

DOCUMENT NUMBER: 141:313663

TITLE: Separation tagging with cyclodextrin-binding groups:

Mitsunobu reactions with bis(2-(1-adamantyl)ethyl) azodicarboxylate (BadEAD) and bis(1-adamantylmethyl)

azodicarboxylate (BadMAD)

AUTHOR(S): Dandapani, Sivaraman; Newsome, Jeffery J.; Curran,

Dennis P.

CORPORATE SOURCE: Department of Chemistry, University of Pittsburgh,

Pittsburgh, PA, 15260, USA

SOURCE: Tetrahedron Letters (2004), 45(35), 6653-6656

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:313663

An ew method for separation tagging with cyclodextrin-binding groups is introduced and is exemplified in the context of the Mitsunobu reaction with adamantyl tags. HPLC expts. showed that mols. containing adamantyl groups were especially well retained on Sumichiral OA7500  $\beta$ -methylated cyclodextrin bonded silica columns relative to many other types of mols. Two new Mitsunobu reagents, bis(1-adamantylmethyl) azodicarboxylate (BadMAD) and bis(2-(1-adamantyl)ethyl) azodicarboxylate (BadEAD), were prepared, used in typical Mitsunobu reactions and separated with both  $\beta$ -methylated cyclodextrin bonded silica and standard silica.

IT 21317-84-0P 766546-16-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(Mitsunobu reactions with bis(2-(1-adamantyl)ethyl) azodicarboxylate and bis(1-adamantylmethyl) azodicarboxylate and separation tagging with cyclodextrin-binding groups)

RN 21317-84-0 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-ylmethyl ester (CA INDEX NAME)

RN 766546-16-1 CAPLUS

CN Carbonochloridic acid, 2-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 12 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:635351 CAPLUS

DOCUMENT NUMBER: 141:424972

TITLE: A new monocyclic fluoropolymer for 157-nm photoresists

AUTHOR(S): Sasaki, Takashi; Takebe, Yoko; Eda, Masataka; Yokokoji, Osamu; Irie, Shigeo; Otoguro, Akihiko;

Fujii, Kiyoshi; Itani, Toshiro

CORPORATE SOURCE: Research Center, Asahi Glass Co., Ltd., Yokohama,

221-8755, Japan

SOURCE: Journal of Photopolymer Science and Technology (2004),

17(4), 639-644

CODEN: JSTEEW; ISSN: 0914-9244

PUBLISHER: Technical Association of Photopolymers, Japan

DOCUMENT TYPE: Journal LANGUAGE: English

We earlier developed a series of fluoropolymers (FPRs) for use as first-generation 157-nm photoresist polymers. These FPRs have a partially fluorinated monocyclic structure and provide excellent transparency. However, their etching resistance is low (half that of conventional KrF resists) and an insufficient dissoln. rate in tetramethylammonium hydroxide (TMAH) solution To improve the characteristics of these polymers, while retaining high transparency, we had to redesign the main chain fluoropolymer structure. In this paper, we describe a new monocyclic fluoropolymer structure for a second-generation 157-nm photoresist polymer. This structure also has a fluorine atom in the polymer main chain, as well as a fluoro-containing acidic alc. group. We synthesized two types of fluoropolymers, ASF-1 and ASF-2. We found that ASF-1 had transparency of  $0.18 \mu m-1$ , better than that of the FPRs, and the etching resistance was improved. Unfortunately, the dissoln. rate was poor. On the other hand, ASF-2 showed even better transparency of 0.1 $\mu m$ -1, improved etching resistance, and a dissoln. rate of more than 600 nm/s, which is sufficient for use as a resist. The introduction of a protecting group (e.g., the methoxymethyl or adamantylmethoxymethyl group) to the hydroxyl group of ASF-2 can be done after the polymerization reaction. Using partially protected ASF-2 with an appropriate protecting group, we were able to fabricate a sub-60-nm line-and-space pattern.

720682-48-4DP, reaction products with fluoropolymer, sodium salt RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(preparation and properties of monocyclic fluoropolymers for  $157\mbox{-nm}$  photoresists)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)

C1CH2-O-CH2

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 13 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:565183 CAPLUS

DOCUMENT NUMBER: 141:107948

GΙ

TITLE: Adamantane derivatives and process for producing them

INVENTOR(S):
Tanaka, Shinji; Ono, Hidetoshi; Kodoi, Kouichi;

Hatakeyama, Naoyoshi

PATENT ASSIGNEE(S): Idemitsu Petrochemical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 28 pp.

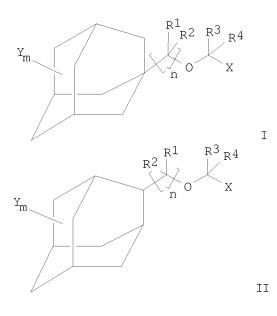
CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	PATENT NO.				KIND DATE		APPLICATION NO.					DATE					
WO	2004 W:	0586 KR,			A1	_	2004	0715		WO 2	2003-	 JP16	258		2	0031	218
	RW:	ΑT,	BE,	BG,	CH,	CY	, CZ,	DE,	DK,	EE,	, ES,	FI,	FR,	GB,	GR,	HU,	IE,
		ΙΤ,	LU,	MC,	NL,	PT	, RO,	SE,	SI,	SK,	, TR						
JP	2004	2176	27		A		2004	0805		JP 2	2003-	4144	45		2	0031	212
EP	1577	285			A1		2005	0921		EP 2	2003-	7808	91		2	0031	218
	R:	ΑT,	BE,	CH,	DE,	DK	, ES,	FR,	GB,	GR,	, IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	FΙ,	RO,	CY	, TR,	BG,	CZ,	EE,	, HU,	SK					
US	2006	1490	73		A1		2006	0706		US 2	2005-	5405	47		2	0051	213
PRIORIT	Y APP	LN.	INFO	. :						JP 2	2002-	3746	59		A 2	0021	225
										WO 2	2003-	JP16	258	1	W 2	0031	218
OTHER S	OURCE	(S):			MAR:	PAT	141:	1079	48								



AB Compds. I and II (R1-R4 = H, halo, C1-10 alkyl, C1-10 haloalkyl; X = halo; Y = C1-10 alkyl, C1-10 haloalkyl, halo, heteroatom-containing group; m = 0-15; n = 0-10; wherein in I, the case where both of m and n are 0 and both of R3 and R4 are H is excluded; in I and II, two Y groups may form :0 group),

such as chloromethyl adamantylmethyl ether and chloromethyl  $4-\infty$ 0-2-adamantyl ether, are prepared. The adamantane derivs. are useful as modifiers for photoresist resins in the field of photolithog., dry-etching resistance improvers, intermediates for agricultural chems. and medicines, and other various industrial products.

IT 720682-48-4P

RL: IMF (Industrial manufacture); PREP (Preparation) (preparation of adamantane derivs.)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)

C1CH2-O-CH2

L10 ANSWER 14 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:491214 CAPLUS

DOCUMENT NUMBER: 142:472501

TITLE: A new monocyclic fluoropolymer structure for 157-nm

photoresists

AUTHOR(S): Takebe, Yoko; Eda, Masataka; Okada, Shinji; Yokokoji,

Osamu; Irie, Shigeo; Otoguro, Akihiko; Fujii, Kiyoshi;

Itani, Toshiro

CORPORATE SOURCE: Research Center, Asahi Glass Co., Ltd., Kanagawa-ken,

221-8755, Japan

SOURCE: Proceedings of SPIE-The International Society for

Optical Engineering (2004), 5376(Pt. 1, Advances in

Resist Technology and Processing XXI), 151-158

CODEN: PSISDG; ISSN: 0277-786X

PUBLISHER: SPIE-The International Society for Optical Engineering

DOCUMENT TYPE: Journal LANGUAGE: English

We earlier developed a series of fluoropolymers (FPRs) for use as first-generation 157-nm photoresist polymers. These FPRs have a partially fluorinated monocyclic structure and provide excellent transparency. However, their etching resistance is low (half that of conventional KrF resists) and an insufficient dissoln. rate in tetramethylammonium hydroxide (TMAH) solution To improve the characteristics of these polymers, while retaining high transparency, we had to redesign the main chain fluoropolymer structure. In this paper, we describe a new monocyclic fluoropolymer structure for a second-generation 157-nm photoresist polymer. This structure also has a fluorine atom in the polymer main chain, as well as a fluoro-containing acidic alc. group. We synthesized two types of fluoropolymers, ASF-1 and ASF-2. We found that ASF-1 had transparency of 0.18  $\mu$ m-1, better than that of the FPRs, and the etching resistance was improved. Unfortunately, the dissoln. rate was poor. On the other hand, ASF-2 showed even better transparency of 0.1  $\mu\text{m-1}$ , improved etching resistance, and a dissoln. rate of more than 600 nm/s, which is sufficient for use as a resist. The introduction of a protecting group (e.g., the methoxymethyl or adamantylmethoxymethyl group) to the hydroxyl group of ASF-2 can be done after the polymerization reaction. Using partially protected ASF-2 with an appropriate protecting group, we were able to fabricate a sub-60-nm line-and-space pattern.

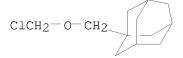
IT 720682-48-4DP, reaction products

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(monocyclic fluoropolymer for 157-nm photoresists)

RN 720682-48-4 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chloromethoxy)methyl]- (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 15 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:389970 CAPLUS

DOCUMENT NUMBER: 140:383121

TITLE: F2 excimer laser-sensitive positive photoresist

compositions with good coatability and dry etchability Kanna, Shinichi; Mizutani, Kazuyoshi; Sasaki, Tomoya

INVENTOR(S): Kanna, Shinichi; Mizutani, Kazuyoshi; S PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004138887	A	20040513	JP 2002-304421	20021018
PRIORITY APPLN. INFO.:			JP 2002-304421	20021018

AB The photoresist compns. sensitive to vacuum UV ( $\leq 160$  nm) contain resins comprising 1st repeating units CF2C(XZ)F (X = 0, S; Z = organic group with no acid decomposability) and 2nd repeating units having groups that are converted to alkali-soluble groups by acid decomposition so as to increase solubility of the resins in alkali developers. The resins may further contain cycloolefin units.

IT 685523-13-1 685523-15-3

RL: TEM (Technical or engineered material use); USES (Uses) (F2 excimer laser-sensitive pos. photoresists with good coatability and dry etchability)

RN 685523-13-1 CAPLUS

CN Carbonic acid, 1-(bicyclo[2.2.1]hept-5-en-2-ylmethyl)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl 1,1-dimethylethyl ester, polymer with 1-[(trifluoroethenyl)oxy]tricyclo[3.3.1.13,7]decane (9CI) (CA INDEX NAME)

CM 1

CRN 685522-91-2 CMF C12 H15 F3 O

$$F-C-O$$

CM 2

CRN 196314-63-3 CMF C16 H20 F6 O3

RN 685523-15-3 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with 2-methyl-2-propenenitrile and 3-[(trifluoroethenyl)oxy]- $\alpha$ ,  $\alpha$ -bis(trifluoromethyl)tricyclo[3.3 .1.13,7]decane-1-methanol (9CI) (CA INDEX NAME)

CM 1

CRN 685522-94-5 CMF C15 H15 F9 O2

CM 2

CRN 365568-55-4 CMF C13 H17 F3 O2

CM 3

CRN 126-98-7 CMF C4 H5 N

$$^{\text{CH}_2}_{\parallel}$$
 $^{\text{H}_3\text{C}-\text{C}-\text{C}}_{\parallel}$ 
 $^{\text{N}}$ 

L10 ANSWER 16 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:287622 CAPLUS

DOCUMENT NUMBER: 137:5856

TITLE: Bridgehead Carbocations via Carbene Fragmentation:

Erasing a 1010 Kinetic Preference

AUTHOR(S): Moss, Robert A.; Zheng, Fengmei; Fede, Jean-Marie; Ma,

Yan; Sauers, Ronald R.; Toscano, John P.; Showalter,

Brett M.

CORPORATE SOURCE: Department of Chemistry and Chemical Biology, Rutgers,

The State University of New Jersey, New Brunswick, NJ,

08903, USA

SOURCE: Journal of the American Chemical Society (2002),

124(19), 5258-5259

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:5856

1-Norbornyloxychlorocarbene (1-NorOCCl), 1-bicyclo[2.2.2]octyloxychlorocar bene (1-BcoOCCl), and 1-adamantyloxychlorocarbene (1-AdOCCl) were generated in dichloroethane (DCE) by photolysis of the appropriate diazirines. The exclusive product in each case was the bridgehead alkyl chloride formed by fragmentation of the carbene to [R+ OC Cl-] ion pairs, loss of CO, and cation-anion collapse. In mixts. of methanol and DCE, each carbene gave three products: RCl, ROH, and ROMe. RCl and ROMe resulted from competition between ion pair collapse and methanol capture of the cation. ROH resulted from methanol capture of the carbene (before fragmentation), followed by eventual methanolysis and hydrolysis of ROCH(Cl)OMe. The ratios of carbene capture to carbene fragmentation fell in the order 1-NorOCCl > BcoOCCl > 1-AdOCCl; 1-Nor+ was the least stable cation and the slowest to form by fragmentation, so that this carbene was the most readily captured. This trend was accentuated in methanol-pentane mixts., where ionic fragmentation was further slowed in the less polar solvent. Laser flash photolysis with either UV or time-resolved IR (TRIR) monitoring permitted the determination of the absolute rate consts. for

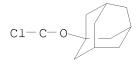
of the carbenes in DCE at  $25^{\circ}$ . The rate consts. (s-1) were: 1-NorOCCl (3.3 + 104), 1-BcoOCCl (1.5 + 105), and 1-AdOCCl (5.9 + 105). The rate consts. decreased in the order of increasing strain in the resulting bridgehead carbocation, but the range of rate consts. was compressed to a factor of only .apprx.18. This contrasts with the factor of 1010 by which the acetolysis of 1-AdOTs at  $70^{\circ}$  exceeded that of 1-NorOTs. The fragmentation of 1-NorOCCl to the ion pair was 3 + 1015 times faster than the acetolysis of 1-NorOTs. The activation energies were measured as 9.0 kcal/mol (log A = 11.2 s-1) for the fragmentation of 1-NorOCCl and 4.4 kcal/mol (log A = 8.44 s-1) for that of 1-BcoOCCl both in DCE. B3LYP/6-31G\* computed activation energies in simulated DCE were 14.6 and 2.7 kcal/mol, resp.

IT 433713-18-9

RL: CPS (Chemical process); FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent) (carbene mechanistic reaction intermediate; erasing 1010 kinetic preference and bridgehead carbocations via carbene fragmentation)

RN 433713-18-9 CAPLUS

CN Methylene, chloro(tricyclo[3.3.1.13,7]dec-1-yloxy)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 17 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:758593 CAPLUS

DOCUMENT NUMBER: 134:85927

TITLE: New Kinetics Methodologies Applied to Carbene

Fragmentation Reactions

AUTHOR(S): Moss, Robert A.; Johnson, Lauren A.; Yan, Shunqi;

Toscano, John P.; Showalter, Brett M.

CORPORATE SOURCE: Department of Chemistry, Rutgers The State University

of New Jersey, New Brunswick, NJ, 08903, USA

SOURCE: Journal of the American Chemical Society (2000),

122(45), 11256-11257

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB LFP-Time Resolved IR spectroscopy (TRIR) kinetics were conducted on chloro(alkylmethoxy)carbene precursors 3-benzyloxy-3-chlorodiazirine and 3-(1-adamantylmethoxy)-3-chlorodiazirine, by monitoring the formation of CO. Activation parameters were determined B3LYP DFT calcns. support the mechanism which suggests that the (1-adamantylmethoxy)chlorocarbene fragmentation involves a concerted ring expansion of the 1-adamantylmethyl group directly to the homoadamantyl cation.

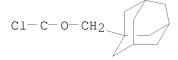
IT 182802-27-3

RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent)

(fragmentation kinetics of alkoxychlorocarbenes)

RN 182802-27-3 CAPLUS

CN Methylene, chloro(tricyclo[3.3.1.13,7]dec-1-ylmethoxy)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 18 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:405836 CAPLUS

DOCUMENT NUMBER: 131:213812

TITLE: A novel synthesis of trifluoromethyl ethers via

xanthates, utilizing BrF3

AUTHOR(S): Ben-David, Iris; Rechavi, Dalit; Mishani, Eyal; Rozen,

Shlomo

CORPORATE SOURCE: Raymond and Beverly Sackler Faculty of Exact Sciences,

School of Chemistry, Tel-Aviv University, Tel-Aviv,

69978, Israel

SOURCE: Journal of Fluorine Chemistry (1999), 97(1-2), 75-78

CODEN: JFLCAR; ISSN: 0022-1139

PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal LANGUAGE: English

 $\mbox{AB}$  Alcs. were transformed into trifluoromethyl ethers by converting them to

xanthates in almost quant. yield and following with a BrF3 reaction.

IT 242795-34-2P 242795-40-0P 242795-41-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

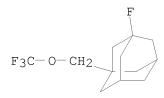
(preparation of trifluoromethyl ethers by reaction of xanthates with bromine

trifluoride)

RN 242795-34-2 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-fluoro-3-[(trifluoromethoxy)methyl]- (CA

INDEX NAME)



RN 242795-40-0 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(trifluoromethoxy)methyl]- (CA INDEX NAME)

F3C-O-CH2

RN 242795-41-1 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(chlorodifluoromethoxy)methyl]- (CA INDEX NAME)

C1-CF2-O-CH2

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 19 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:323158 CAPLUS

DOCUMENT NUMBER: 129:16386

TITLE: Preparation of branched peptide linkers

INVENTOR(S): King, Dalton; Firestone, Raymond A.; Dubowchik, Gene

Μ.

PATENT ASSIGNEE(S): Bristol-Myers Squibb Co., USA

SOURCE: PCT Int. Appl., 120 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.				KIND DATE			APPLICATION NO.					DATE				
WO	9819	705			A1	_	1998	0514		 WO 1	 .997-	 US19	 851		1	 9971	031
	W:	AL,	AM,	AT,	ΑU,	ΑZ,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CZ,	DE,	DK,	EE,
		ES,	FΙ,	GB,	GE,	HU,	IL,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LK,	LR,	LS,
		LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,
		SE,	SG,	SI,	SK,	ТJ,	TM,	TR,	TT,	UA,	UG,	UZ,	VN,	AM,	AZ,	BY,	KG,
		KΖ,	MD,	RU,	ТJ,	TM											
	RW:	GH,	KΕ,	LS,	MW,	SD,	SZ,	UG,	ZW,	ΑT,	BE,	CH,	DE,	DK,	ES,	FΙ,	FR,
		GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,
		GN,	ML,	MR,	ΝE,	SN,	TD,	TG									
CA	2264	610			A1		1998	0514		CA 1	997-	2264	610		1	9971	031
AU	9851	597			A		1998	0529		AU 1	998-	5159	7		1	9971	031
EP	9411	20			A1		1999	0915		EP 1	997-	9464	28		1	9971	031
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,
		IE,	FΙ														
JP	2001	5051	94		T		2001	0417		JP 1	998-	5216	06		1	9971	031
US	6759	509			В1		2004	0706		US 1	997-	9623	48		1	9971	031
PRIORIT	Y APP	LN.	INFO	. :						US 1	996-	3036	7P		P 1	9961	105
										WO 1	997-	US19	851	1	W 1	9971	031
OTHER S	OLIBOR	(8).			MADI	DAT	129.	16386	5								

OTHER SOURCE(S): MARPAT 129:16386

AB Conjugates containing a targeting ligand, such as an antibody, a

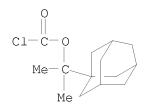
ΙT

therapeutically active drug and a branched peptide linker are given. The branched peptide linker contains two or more amino acid moieties that provide an enzyme cleavage site. The number of drugs capable of being bonded to the branched linkers varies by a factor of two for each generation of branching. Compds. A-Wc-(CH2)a-(Q)p-(CO)d-E[(CH2)b-X]2 (A=thiol acceptor, W=delta=del

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of branched peptide linkers)

RN 207613-88-5 CAPLUS

CN Carbonochloridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 20 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:578907 CAPLUS

DOCUMENT NUMBER: 126:8576

TITLE: Amino acids and peptides. Part 45. Development of a

new  $N\pi$ -protecting group of histidine,

 $N\pi$ -(1-adamantyloxymethyl)histidine, and its

evaluation for peptide synthesis

AUTHOR(S): Okada, Yoshio; Wang, Jidong; Yamamoto, Takeshi; Mu,

Yu; Yokoi, Toshio

CORPORATE SOURCE: Fac. Pharmaceutical Sci., Kobe Gakuin Univ., Kobe,

651-21, Japan

SOURCE: Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1996), (17),

2139-2143

CODEN: JCPRB4; ISSN: 0300-922X

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 126:8576

AB N $\pi$ -(1-Adamantyloxymethyl)histidine, His(N $\pi$ -1-Adom), is prepared and its properties are examined The 1-Adom group can be easily removed by trifluoroacetic acid and it is stable to 20% piperidine-DMF and 1 mol dm-3 NaOH. His(N $\pi$ -1-Adom) derivs. can suppress racemization during coupling reactions. His(N $\pi$ -1-Adom) can be used in solid-phase peptide synthesis in combination with fluoren-9-ylmethoxycarbonyl (Fmoc) as an

 $N\alpha\text{-protecting group.}$  TSH-releasing hormone is successfully synthesized by using His(N\pi-1-Adom).

IT 177093-80-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(development and use of the adamantyloxymethyl protective group for solid-phase preparation of histidine-containing peptides)

RN 177093-80-0 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-(chloromethoxy)- (CA INDEX NAME)

C1CH<sub>2</sub>-O

L10 ANSWER 21 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:569675 CAPLUS

DOCUMENT NUMBER: 125:300266

TITLE: Absolute Kinetics of Alkoxychlorocarbene Fragmentation AUTHOR(S): Moss, Robert A.; Ge, Chuan-Sheng; Maksimovic, Ljiljana CORPORATE SOURCE: Department of Chemistry, Rutgers The State University

of New Jersey, New Brunswick, NJ, 08903, USA

SOURCE: Journal of the American Chemical Society (1996),

118(40), 9792-9793

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

Alkoxychlorocarbenes, ROCCl, generated by the photolysis of AΒ 3-alkoxy-3-halodiazirines in MeCN, fragmented to ion pairs [R+ OC Cl-] from which products were derived. Competitively, the carbenes were intercepted by HCl or traces of water. The absolute rate consts. derived for carbene fragmentation in MeCN-pyridine (where HCl was scavenged), were determined by laser lash photolysis: R = benzyl, k = 0.69-1.3 + 106 s-1; R = (1-adamantyl) methyl, k = 2.8-5.2 + 106 s-1; and R = neopentyl, k= 0.3-1.3 + 106 s-1. (The ranges shown for k represent detns. by direct or double reciprocal kinetic analyses.). Principal products (in MeCN), as a function of R, included R = benzyl; benzyl chloride (63%) andN-benzyl acetamide (37%, Ritter reaction); R = (1-adamantyl)methyl; 1-homoadamantyl chloride (61.8%), (1-adamantyl)methyl chloride (2.7%), N-1-homoadamantyl acetamide (11.3%), 1-homoadamantanol (5.5%), (1-adamantyl)methyl dichloromethyl ether (16.3%), and (1-adamantyl)methyl formate (2.4%); R = neopentyl: 2-methyl-2-butene (13.8%), 2-methyl-1-butene (26.5%), 2-chloro-2-methylbutane (4.0%), neopentyl dichloromethyl ether (51.6%), and neopentyl formate (3.4%). The mechanistic origins of the products are discussed. In particular, distinction is made between the ion pair (carbene fragmentation) products and the HCl (dichloromethyl ethers) and water (formates) carbene interception products. A strong solvent effect was noted; in hexane, the carbenes were slow to fragment and carbene dimerization became the chief reaction pathway.

IT 182802-27-3

RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation,

nonpreparative); PROC (Process); RACT (Reactant or reagent) (absolute kinetics of alkoxychlorocarbene fragmentation)

RN 182802-27-3 CAPLUS

CN Methylene, chloro(tricyclo[3.3.1.13,7]dec-1-ylmethoxy)- (9CI) (CA INDEX NAME)

C1-C-O-CH2

IT 182802-46-6P

RL: SPN (Synthetic preparation); PREP (Preparation) (absolute kinetics of alkoxychlorocarbene fragmentation)

RN 182802-46-6 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[(dichloromethoxy)methyl]- (CA INDEX NAME)

Cl<sub>2</sub>CH-O-CH<sub>2</sub>

L10 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:243788 CAPLUS

DOCUMENT NUMBER: 125:11440

TITLE: Development of a new  $N\pi$ -protecting group for

histidine, N $\pi$ -1-adamantyloxymethylhistidine

AUTHOR(S): Okada, Yoshio; Wang, Jidong; Yamamoto, Takeshi; Mu, Yu

CORPORATE SOURCE: Fac. Pharmaceutical Sci., Kobe Gakuin Univ., Kobe,

651-21, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1996), 44(4),

871-3

CODEN: CPBTAL; ISSN: 0009-2363 Pharmaceutical Society of Japan

PUBLISHER: Pharmaceutical Society DOCUMENT TYPE: Journal

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 125:11440

GΙ

N N H<sub>2</sub>N CO<sub>2</sub>H I

AB  $N\pi$ -1-Adamantyloxymethylhistidine (I) was prepared, and the properties of

the 1-adamantyloxymethyl (1-Adom) group were examined 1-Adom group can be easily removed by TFA; it is stable to 20% piperidine/DMF and 1N NaOH. Derivs. of I can suppress racemization during coupling reaction. TRH was successfully synthesized using I.

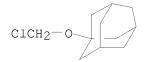
IT 177093-80-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, peptide coupling, and deprotection reactions of (adamantyloxymethyl)histidine derivs.)

RN 177093-80-0 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-(chloromethoxy)- (CA INDEX NAME)



L10 ANSWER 23 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:496128 CAPLUS

DOCUMENT NUMBER: 119:96128

TITLE: Investigations with selective deblocking reagents for

Adpoc-protected amino acids and peptides

AUTHOR(S): Voelter, Wolfgang; Kalbacher, Hubert

CORPORATE SOURCE: Physiol. chem. Inst., Univ. Tuebingen, Tuebingen,

W-7400, Germany

SOURCE: Liebigs Annalen der Chemie (1993), (2), 131-6

CODEN: LACHDL; ISSN: 0170-2041

DOCUMENT TYPE: Journal LANGUAGE: German

OTHER SOURCE(S): CASREACT 119:96128

AB Selective reagents for the removal of the Adpoc (adamantylisopropoxycarbonyl) group have been developed. For this purpose several peptides containing tryptophan and N $\epsilon$ -tert-

butoxycarbonyllysine have been synthesized. Among several acidolytic reagents, 0.1 N HCl/CF3CH2OH/CHCl3 (1:9:1) and 50% HCOOH/CF3CH2OH/CHCl3

(1:9:1) show high selectivity especially for the N $\epsilon$ -tert-

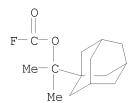
butyloxycarbonyl group of lysine. Cleavage rates are determined by HPLC and TLC.

IT 74654-74-3

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with amino acids)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L10 ANSWER 24 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:489873 CAPLUS

DOCUMENT NUMBER: 117:89873

Aerosol fluorination of 1-chloroadamantane, TITLE:

> 2-chloroadamantane, and methyl 1-adamantylacetate: a novel synthetic approach to 1- and 2-substituted hydryl-, methyl-, and (difluoromethyl-F-adamantanes Adcock, James L.; Luo, Huimin; Zuberi, Sharique S.

AUTHOR(S):

CORPORATE SOURCE: Dep. Chem., Univ. Tennessee, Knoxville, TN,

37996-1600, USA

Journal of Organic Chemistry (1992), 57(17), 4749-52 SOURCE:

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 117:89873

1-Chloroperfluoroadamantane (I) and 2-chloroperfluoroadamantane (II) have been synthesized by aerosol direct fluorination of the corresponding hydrocarbons for the first time. The conversion of I and II to 1- and 2-methylperfluoroadamantane using MeLi and to 1- and 2-  $\frac{1}{2}$ hydrylperfluoroadamantane by two different methods is described. The aerosol direct fluorination of the Me ester of 1-adamantaneacetic acid gave the perfluorinated analog and the analogous acid fluoride, from which 1-difluoromethylperfluoroadamantane was synthesized in good yield. All compds. were characterized by 19F-NMR, FTIR, mass spectrometry and elemental anal.

ΙT 82829-41-2P

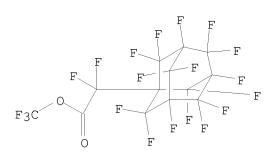
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and sequential hydrolysis and decarboxylation of)

82829-41-2 CAPLUS RN

Tricyclo[3.3.1.13,7]decane-1-acetic acid,  $\alpha, \alpha, 2, 2, 3, 4, 4, 5, 6, 6$ , CN

7,8,8,9,9,10,10-heptadecafluoro-, trifluoromethyl ester (CA INDEX NAME)



L10 ANSWER 25 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

1992:440368 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 117:40368

TITLE: New water-soluble pilocarpine derivatives with enhanced and sustained muscarinic activity

AUTHOR(S):

Druzgala, Pascal; Winwood, David; Drewniak-Deyrup,

Malgorzata; Smith, Scott; Bodor, Nicholas; Kaminski,

James J.

CORPORATE SOURCE: Xenon Vision, Inc., Alachua, FL, 32615, USA

Pharmaceutical Research (1992), 9(3), 372-7 SOURCE:

CODEN: PHREEB; ISSN: 0724-8741

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

The synthesis of an homologous series of new water-soluble derivs. of AΒ pilocarpine is described. The new compds., referred to as soft quaternary salts, are water soluble by virtue of a cationic ammonium head and their lipophilicity can be modulated by manipulating the size and the nature of the substituent in the inactive portion of the mol. The miotic activity of the compds. was evaluated after administration to normotensive New Zealand White rabbits. Changes in pupil size indicated a substantial cholinergic effect on the iridal sphincter musculature. The best candidate, I which has a 16-carbon side chain, was evaluated for reduction of the intraocular pressure in genetically glaucomatous beagles. I is superior to pilocarpine in both tests, with a potency 10-20-fold that of the parent compound and a longer duration of action. The new compds. are prodrug forms of pilocarpine which greatly enhance the corneal bioavailability of the parent compound

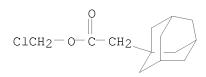
142059-93-6P ΙT

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction with pilocarpine)

RN 142059-93-6 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-acetic acid, chloromethyl ester (CA INDEX NAME)



L10 ANSWER 26 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

1990:477752 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 113:77752

TITLE: Radiochemical alkylation of adamantane by

perfluorovinyl ethers

AUTHOR(S): Machula, A. A.; Podkhalyuzin, A. T.; Shapet'ko, N. N. CORPORATE SOURCE:

Nauchno-Issled. Fiz.-Khim. Inst. im. Karpova, Moscow,

USSR

Khimiya Vysokikh Energii (1990), 24(2), 117-21 SOURCE:

CODEN: KHVKAO; ISSN: 0023-1193

DOCUMENT TYPE: Journal LANGUAGE: Russian

AB Title reaction with CF2:CFR [I; R = OC3F7-n, O(CF2)3OCF3] and a 60Co source in EtOAc at 308-373 K gave 1- and 1,3-dialkylation products via a complex mechanism. A kinetic anal. yielded activation energies of .apprx.16-17 kJ/mol. I [R = OCF3, OCF2CF(CF3)OC3F7-n] were of comparable reactivity to the above, but that of I [R = CF3, O[CF2CF(CF3)O]2C3F7-n, OCF2CF(CF3)OCF2CF2SO2F, F, O(CF2)5CO2Me, O(CF2)3OCF(CF3)CN] decreased in the stated order of R.

IT 128428-29-5P 128428-30-8P 128428-31-9P

128428-32-0P RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of) RN 128428-29-5 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[1,1,2-trifluoro-2-(heptafluoropropoxy)ethyl]- (9CI) (CA INDEX NAME)

RN 128428-30-8 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1,3-bis[1,1,2-trifluoro-2-(heptafluoropropoxy)ethyl]- (9CI) (CA INDEX NAME)

RN 128428-31-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[1,1,2-trifluoro-2-[1,1,2,2,3,3-hexafluoro-3-(trifluoromethoxy)propoxy]ethyl]- (CA INDEX NAME)

RN 128428-32-0 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1,3-bis[1,1,2-trifluoro-2-[1,1,2,2,3,3-hexafluoro-3-(trifluoromethoxy)propoxy]ethyl]- (CA INDEX NAME)

L10 ANSWER 27 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:167919 CAPLUS

DOCUMENT NUMBER: 108:167919

TITLE: The interaction of copper(II) ions with the

thyrotropin-releasing hormone synthesized by Adpoc

protection

AUTHOR(S): Maskos, Karol; Kalbacher, Hubert; Stock, Wieland;

Voelter, Wolfgang

CORPORATE SOURCE: Physiol.-Chem. Inst., Univ. Tuebingen, Tuebingen,

D-7400, Fed. Rep. Ger.

SOURCE: Zeitschrift fuer Naturforschung, B: Chemical Sciences

(1987), 42(4), 459-66

CODEN: ZNBSEN; ISSN: 0932-0776

DOCUMENT TYPE: Journal LANGUAGE: English

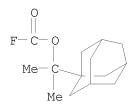
AB The copper(II) complexes of the TSH-releasing hormone (L-pyroglutamyl-L-histidyl-L-prolinamide, TRH) in aqueous 3M LiCl solns. were investigated as a function of pH by CD, absorption, ESR spectroscopy. A simple ML (1N) complex of copper (II)-TRH is formed over the pH range 4.0-4.5, while 2N and 3N complexes are present in solns. of pH of 4.4-6.0. From pH 6.1 to 9.8, a ML2 (4N) complex is formed and this species is the only complex found over the pH range 6.5-8.5. At pH values above 9.0, a 3N species is formed in addition to a 2N complex which is present in the solns. of pH 11.3. These observations are controversial with respect to former reports. TRH was synthesized using the fully Adpoc (adamantylisopropyloxycarbonyl)-protected histidine. The advantages of the Adpoc group (cleavable under extreme mild acidolytic conditions) become obvious.

IT 74654-74-3

RL: RCT (Reactant); RACT (Reactant or reagent) (protection by, of histidine)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L10 ANSWER 28 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:111768 CAPLUS

DOCUMENT NUMBER: 108:111768

TITLE: Efficient synthesis of tert-alkoxyethynes

AUTHOR(S): Pericas, Miquel A.; Serratosa, Felix; Valenti, Eduard CORPORATE SOURCE: Dep. Quim. Orq., Univ. Barcelona, Barcelona, 08028,

Spain

SOURCE: Tetrahedron (1987), 43(10), 2311-16

CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 108:111768

AB Bromoalkoxylation of EtOCH: CH2 with Br and ROH (R = Me3C, 1-adamantyl) gave BrCH2CH(OR)OEt (I). Chlorodeethoxylation of I with PCl5, followed by

dehydrochlorination, gave (Z)-ROCH:CHBr (II) in 72-76% yields.

Dehydrobromination of II with NaNH2 gave ROC.tplbond.CH in 59-75% yields. Dehydrobromination of II (R = Me3C) with LiN(CHMe2)2, followed by

alkylation with BuBr, gave Me3COC.tplbond.CBu in 47-55% yield.

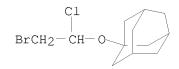
IT 113279-38-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and dehydrochlorination of, with triethylamine)

RN 113279-38-2 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-(2-bromo-1-chloroethoxy)- (CA INDEX NAME)



L10 ANSWER 29 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:611692 CAPLUS

DOCUMENT NUMBER: 101:211692
ORIGINAL REFERENCE NO.: 101:32099a

TITLE: Recently developed amino protecting groups

AUTHOR(S): Voelter, Wolfgang; Kalbacher, Hubert; Beni, Charles;

Heinzel, Wolfgang; Mueller, Juergen

CORPORATE SOURCE: Physiol. Inst., Univ. Tuebingen, Tuebingen, D-7400,

Fed. Rep. Ger.

SOURCE: Chem. Pept. Proteins, Proc. USSR-FRG Symp., 4th (1984)

, Meeting Date 1982, 103-14. Editor(s): Voelter, Wolfgang. de Gruyter: Berlin, Fed. Rep. Ger.

CODEN: 52BGAY

DOCUMENT TYPE: Conference LANGUAGE: English

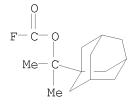
AB Cleavage rates are tabulated for amino acids and peptides protected by 3,5-(Me3C)2C6H3CR2O2C (R = H, Me) or RCMe2O2C (R = PhCH2, 1-adamantyl).

IT 74654-74-3P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, for protection of amino acids)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L10 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:552339 CAPLUS

DOCUMENT NUMBER: 101:152339

ORIGINAL REFERENCE NO.: 101:23083a,23086a

TITLE: Substituted carbonic acid esters INVENTOR(S): Kalbacher, Hubert; Voelter, Wolfgang

PATENT ASSIGNEE(S): Fed. Rep. Ger.

SOURCE: U.S., 9 pp. Cont. of U.S. Ser. No. 71,668, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
				_	
US 4440692	А	19840403	US 1982-372798		19820428
PRIORITY APPLN. INFO.:			US 1979-71668	Α1	19790831
OTHER SOURCE(S):	CASREA	CT 101:15233	9; MARPAT 101:152339		

AB RCR1R2O2CR3 [R = 1-adamantyl (Ad) or substituted Ad; R1, R2 = C1-8 alkyl; R3 = C1, F, azido, (un)substituted OPh, succinimido, ON:CRCN, O2CCMe2R] were prepared as reagents for the synthesis of protected amino acids and

peptides, e.g., AdCMe2O2C (Adpoc) amino acids. Thus, SO3-free FCOCl, obtained from 65% oleum and Cl3CF, was treated with AdCMe2OH in ether containing Et3N at -40° until gas evolution ceased. The resulting mixture was allowed to stand overnight at -20° to give 95% Adpoc-F. Adpoc-F was treated with amino acids to give Adpoc amino acids, e.g.,

Adpoc-Trp-OH was obtained in 82% yield.

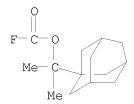
IT 74654-74-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with amino acid)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L10 ANSWER 31 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:179873 CAPLUS

DOCUMENT NUMBER: 98:179873

ORIGINAL REFERENCE NO.: 98:27363a,27366a

TITLE: Conventional synthesis of thymopoietin 32-36 (TP 5)

using the acid-labile 1-(1-adamantyl)-1-

methylethoxycarbonyl group

AUTHOR(S): Heinzel, Wolfgang; Kronbach, Thomas; Voelter, Wolfgang

CORPORATE SOURCE: Physiol. Chem. Inst., Univ. Tuebingen, Tuebingen,

D-7400/1, Fed. Rep. Ger.

SOURCE: Zeitschrift fuer Naturforschung, Teil B: Anorganische

Chemie, Organische Chemie (1982), 37B(12), 1652-8

CODEN: ZNBAD2; ISSN: 0340-5087

DOCUMENT TYPE: Journal LANGUAGE: German

AB The title peptide, H-Arg-Lys-Asp-Val-Tyr-OH, was prepared by stepwise couplings in solution using the title group (Adpoc) for the protection of NH2

groups. The Adpoc group can be cleaved selectively by mild acidolysis (3%

CF3CO2H in CH2Cl2) in the presence of Me3CO2C and tert-Bu groups.

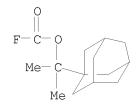
IT 74654-74-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with valine derivs.)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L10 ANSWER 32 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:161159 CAPLUS

DOCUMENT NUMBER: 98:161159

ORIGINAL REFERENCE NO.: 98:24471a,24474a

TITLE: The 1-(3,5-di-tert-butylphenyl)-1-methylethoxycarbonyl

(t-Bumeoc) residue, a novel extremely acid-labile

amino protecting group for peptide syntheses

AUTHOR(S): Voelter, Wolfgang; Mueller, Juergen

CORPORATE SOURCE: Physiol.-Chem. Inst., Univ. Tuebingen, Tuebingen,

D-7400, Fed. Rep. Ger.

SOURCE: Liebigs Annalen der Chemie (1983), (2), 248-60

CODEN: LACHDL; ISSN: 0170-2041

DOCUMENT TYPE: Journal LANGUAGE: German

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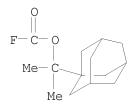
AB The t-Bumeoc group was used as a protective group for the NH2 group in peptide synthesis. Benzoate I was treated with MeMgI to give alc. II (R = H), which was treated with ClCOF to give I (R = COF) (t = Bumeoc-F). Amino acids were N-acylated with t-Bumeoc-F to give t-Bumeoc amino acids, which were characterized by 13C NMR. The t-Bumeoc group was cleaved under very mild acidic conditions; the kinetics of this cleavage was studied. t-Bumeoc-Phe-ONSu (NSu = succinimido) was coupled with D-leucine to give t-Bumeoc-Phe-D-Leu-OH, which was coupled with H-Arg-Phe-NH2 to give t-Bumeoc-Phe-D-Leu-Arg-Phe-NH2.

IT 74654-74-3

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with phenylalanine)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L10 ANSWER 33 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:616689 CAPLUS

DOCUMENT NUMBER: 97:216689

ORIGINAL REFERENCE NO.: 97:36389a,36392a

TITLE: The 1-(1-adamantyl)-1-methylethoxycarbonyl group for

amino protection in peptide synthesis

AUTHOR(S): Voelter, Wolfgang; Kalbacher, Hubert

CORPORATE SOURCE: Inst. Org. Chem., Tuebingen Univ., Tuebingen, D-7400,

Fed. Rep. Ger.

SOURCE: Pept., Proc. Eur. Pept. Symp., 16th (1981), Meeting

Date 1980, 144-9. Editor(s): Brunfeldt, K. Scriptor:

Copenhagen, Den. CODEN: 48NWA3

DOCUMENT TYPE: Conference LANGUAGE: English

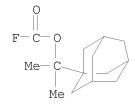
AB The title group (Adpoc) was incorporated into amino acids by N-acylating the amino acids with Adpoc-OPh, Adpoc-F, or Adpo-oxiimino-2-

phenylacetonitrile. The resulting Adpoc amino acids are crystalline compds. and are stable over months at room temperature; they are also stable to UV

light. The Adpoc group is cleaved under mild acidolytic conditions. Adpoc amino acids were used in the solid-phase synthesis of thymopoietin-(36-36), H-Arg-Lys-Asp-Val-Tyr-OH, and in the conventional solution synthesis of thyrotropin-releasing hormone, pyroGlu-His-Pro-NH2.

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L10 ANSWER 34 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:553115 CAPLUS

DOCUMENT NUMBER: 97:153115

ORIGINAL REFERENCE NO.: 97:25363a,25366a

TITLE: Electropreparation of alkyl-substituted

perfluoroadamantane

PATENT ASSIGNEE(S): Agency of Industrial Sciences and Technology, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

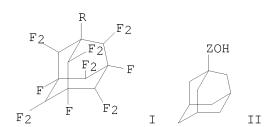
CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57079187	A	19820518	JP 1980-153995	19801031
JP 57043637	В	19820916		
PRIORITY APPLN. INFO.:			JP 1980-153995	19801031
GI				



AB Alkyl-substituted perfluoroadamantones I [R = C1-4] straight chain perfluoroalkyl] were obtained by the electrolytic fluorination of II [HOZ]

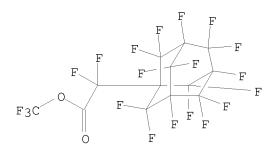
=  $\alpha\text{-hydroxy C1-4}$  straight chain alkyl] in anhydrous HF under an inert gas cover.

IT 82829-41-2P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (synthesis of, by electrochem. fluorination of hydroxyalkyladamantane)

RN 82829-41-2 CAPLUS

CN Tricyclo[3.3.1.13,7]decane-1-acetic acid,  $\alpha, \alpha, 2, 2, 3, 4, 4, 5, 6, 6, 7, 8, 8, 9, 9, 10, 10$ -heptadecafluoro-, trifluoromethyl ester (CA INDEX NAME)



L10 ANSWER 35 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:218200 CAPLUS

DOCUMENT NUMBER: 96:218200

ORIGINAL REFERENCE NO.: 96:36080h,36081a

TITLE: Carbon-13 NMR spectroscopy of new amino protective

groups

AUTHOR(S): Fuchs, Wolfram; Kalbacher, Hubert; Voelter, Wolfgang CORPORATE SOURCE: Abt. Org. Phys. Biochem., Univ. Tuebingen, Tuebingen,

7400, Fed. Rep. Ger.

SOURCE: Organic Magnetic Resonance (1981), 17(3), 157-62

CODEN: ORMRBD; ISSN: 0030-4921

DOCUMENT TYPE: Journal LANGUAGE: English

AB The 13C NMR spectra 30 urethane group N-protected amino acids, e.g. N-(1-adamantyl-1-methylethoxycarbonyl)glycine, were recorded. The 13C NMR parameters correlate to the speeds of acidolytic cleavage of the protective group.

IT 74654-74-3

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with amino acids)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)

L10 ANSWER 36 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1981:140148 CAPLUS

DOCUMENT NUMBER: 94:140148

ORIGINAL REFERENCE NO.: 94:22965a,22968a

TITLE: 1-(1-Adamantyl)-1-methylethoxycarbonyl (ADPOC): a new

group for amino protection in peptide synthesis with

advantageous properties

AUTHOR(S): Voelter, W.; Kalbacher, H.

CORPORATE SOURCE: Inst. Org. Chem., Univ. Tuebingen, Tuebingen, 7400,

Fed. Rep. Ger.

SOURCE: Pept., Struct. Biol. Funct., Proc. Am. Pept. Symp.,

6th (1979), 325-8. Editor(s): Gross, Erhard;

Meienhofer, Johannes. Pierce Chem. Co.: Rockford,

Ill.

CODEN: 44LVAU

DOCUMENT TYPE: Conference LANGUAGE: English

GΙ

 $\mathsf{CMe_2OR}$   $\mathsf{I}$   $\mathsf{II}$ 

AB Adamantylisopropanol I (R = H) was treated with ClCO2Ph, FCOCl, and COCl2/HON:CPhCN to give adamantane reagents I (R = CO2Ph, COF, and CON:CPhCN), which were treated with amino acids to give ADPOC amino acids. Adamantanecarboxylate II (Rl = H) was esterified with PCl5/EtOH to give II (Rl = Et), which was treated with MeMgI to give I (R = H). ADPOC amino acids and peptides are stable for months at room temperature. The ADPOC group can be removed 1,000 times faster than the Me3CO2C group under very mild acidolytic conditions.

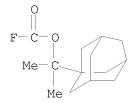
IT 74654-74-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with amino acids)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L10 ANSWER 37 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1981:103796 CAPLUS

DOCUMENT NUMBER: 94:103796

ORIGINAL REFERENCE NO.: 94:16963a, 16966a

TITLE: 1-(1-Adamantyl)-1-methylethoxycarbonyl (Adpoc) fluoride, a useful reagent for synthesis of a new class of protected amino acids with advantageous

properties for peptide synthesis

AUTHOR(S): Kalbacher, Hubert; Voelter, Wolfgang

CORPORATE SOURCE: Inst. Org. Chem., Univ. Tuebingen, Tuebingen, D-7400,

Fed. Rep. Ger.

SOURCE: Journal of the Chemical Society, Chemical

Communications (1980), (24), 1265-6

CODEN: JCCCAT; ISSN: 0022-4936

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 94:103796

AB Adpoc amino acids were prepared in 69-89% yields under mild conditions by acylating the amino acid with the title reagent (I) in DMF/Et2O containing Et3N at  $0^\circ$  for 6 h. I was prepared in 95% yield by treatment of

2-(1-adamanty1)propan-2-ol with FCOCl (CH2Cl2, Et3N, -40 to -30°, overnight).

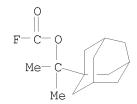
IT 74654-74-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and acylation by, of amino acids)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L10 ANSWER 38 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:514050 CAPLUS

DOCUMENT NUMBER: 93:114050

ORIGINAL REFERENCE NO.: 93:18244h,18245a

TITLE: Adamantanepropyl esters as protective groups

INVENTOR(S): Karlbaha, H.; Bowter, B.

PATENT ASSIGNEE(S): Luxembourg

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

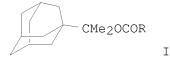
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55043087	А	19800326	JP 1979-115646	19790907
JP 06062511	В	19940817		

EP 10587 EP 10587	A1 B1	19800514 19830601	EP 1979-103160		19790827
R: AT, BE, CH,	DE,	FR, GB, IT,	NL, SE		
AT 3634	T	19830615	AT 1979-103160		19790827
JP 62246548	A	19871027	JP 1986-316102		19861226
JP 01052748	Α	19890228	JP 1988-86213		19880406
JP 03017824	В	19910311			
PRIORITY APPLN. INFO.:			LU 1978-80207	A	19780907
			EP 1979-103160	A	19790827
			JP 1979-115646		19790907

OTHER SOURCE(S): MARPAT 93:114050

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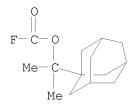
AB Adamantanepropyl esters (I; R = F, PhO, amino acid residue), useful as protective groups in peptide synthesis, were prepared Thus, a mixture of 0.1 mol 2-(1-adamantyl)-2-propanol, 14 mL Et3N, and FCOCl containing SO3 (by reaction of 60 g 65% fuming H2SO4 with 25 mL FCCl3) in Et2O was kept at 40°. Et3N.HCl was filtered off, and the mixture degassed at 10° and 200 mm Hg to give 95% I (R = F). Similarly prepared were I (R = PhO) and 13 amino acid derivs., e.g., I (R = NHCH2CO2H).

IT 74654-74-3P RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 74654-74-3 CAPLUS

CN Carbonofluoridic acid, 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl ester (CA INDEX NAME)



L10 ANSWER 39 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:152109 CAPLUS

DOCUMENT NUMBER: 88:152109

ORIGINAL REFERENCE NO.: 88:23957a,23960a

TITLE: Adamantyl perfluoroisobutenyl ethers

AUTHOR(S): Kryukov, L. N.; Vitkovskii, V. S.; Kryukova, L. Yu.;

Isaev, V. L.; Sterlin, R. N.; Knunyants, I. L.

CORPORATE SOURCE: USSR

SOURCE: Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva im. D.

I. Mendeleeva (1978), 23(1), 115 CODEN: ZVKOA6; ISSN: 0373-0247 DOCUMENT TYPE: Journal LANGUAGE: Russian

AB Treating (F3C)2C:CF2 with ROH (R = 2-naphthyl, 1- and 2-adamantyl) and Na gave 33-41% (F3C)2C:CFOR.

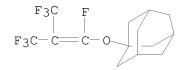
IT 66258-26-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 66258-26-2 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 1-[[1,3,3,3-tetrafluoro-2-(trifluoromethyl)-1-propenyl]oxy]- (9CI) (CA INDEX NAME)



L10 ANSWER 40 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1969:58138 CAPLUS

DOCUMENT NUMBER: 70:58138

ORIGINAL REFERENCE NO.: 70:10937a,10940a

TITLE: 1-Adamantyl- and 1-adamantylmethyl carbonates of

testosterone

INVENTOR(S): Boswell, George A., Jr.

PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co.

SOURCE: S. African, 27 pp.

CODEN: SFXXAB

PATENT NO. KIND DATE APPLICATION NO.

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	ZA 6706588		19680308	ZA	
	DE 1668559			DE	
	FR 1579481			FR	
	FR 7327			FR	
	GB 1187611			GB	
	GB 1187659			GB	
	GB 1187660			GB	
	US 3433813		19690318	US	19661129
PRIO:	RITY APPLN. INFO.:			US	19661129
OTHE	R SOURCE(S):	MARPAT	70:58138		
AB	Anabolic-androgenic	agents	were prepar	ed 19-Nortestosterone	(25.0 g.) in 100
	cc. CH2C12 was shak	en with	75 g. carbo	onyl fluoride under pres	ssure 10 hrs.
	at 20 $\pm$ 2 $^{\circ}$ to give	23.4 g.	19-nortesto	sterone fluoroformate	(I),
	m. 83-3.5°; $[\alpha]$ 23D	34° (c	1.47, CHC13)	. Similarly	
	prepared was testos	terone	fluoroformat	te, m. $104-6^{\circ}$ , [ $\alpha$ ] 23D	
	86° (c 2.33, CHCl3)	. I (1	.0 g.) and $1$	0 g. 1-adamantanemethar	nol in
	75 cc. benzene cont	aining	0.5 cc. pyri	dine was refluxed under	N 24 hrs. to
	give 0.646 g. 19-no	rtestos	terone 1'-ad	lamantylmethyl carbonate	e, m.
	$142.5-3.5^{\circ}$ , $[\alpha]24D$	42° (c	1.65, CHC13)	. Similarly	
	,	•	· · · · · · · · · · · · · · · · · · ·	<u> </u>	

prepared was testosterone 1'-adamantylmethyl carbonate, m.  $158-9^{\circ}$ ,

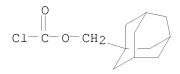
DATE

 $[\alpha]$  24D 79° (c 1.32, CHCl3). Similarly prepared, from 1-adamantyl chloroformate (m. 52-3°; from 1-adamantol and phosgene) was 19-nortestosterone 1'-adamantyl carbonate, m. 167°,  $[\alpha]$  24D 35° (c 1.43, CHCl3). Phosgene was bubbled through 400 cc. Et2O 2 hrs. at 0°, the solution diluted to 800 cc. with Et2O, 100 g. adamantane-1-methanol added, and the mixture stirred 24 hrs. to give 1-adamantylmethyl chloroformate (II), m. 54-5°. Testosterone (13.0 g.) in benzene was refluxed with 12 g. II and 10 cc. pyridine 40 hrs. to give 15 g. 17 $\beta$ -hydroxy-4-androsten-3-one 1'-adamantylmethyl carbonate, m. 157-8°. Ir and uv spectral data were given for the compds.

IT 21317-84-0P

RN 21317-84-0 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-1-ylmethyl ester (CA INDEX NAME)



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                 Zentralblatt
NEWS 3 OCT 19 BEILSTEIN updated with new compounds
NEWS 4 NOV 15 Derwent Indian patent publication number format enhanced
NEWS 5 NOV 19 WPIX enhanced with XML display format
NEWS 6 NOV 30 ICSD reloaded with enhancements
NEWS 7 DEC 04 LINPADOCDB now available on STN
NEWS 8 DEC 14 BEILSTEIN pricing structure to change
NEWS 9 DEC 17 USPATOLD added to additional database clusters
NEWS 10 DEC 17 IMSDRUGCONF removed from database clusters and STN
NEWS 11 DEC 17 DGENE now includes more than 10 million sequences
NEWS 12 DEC 17 TOXCENTER enhanced with 2008 MeSH vocabulary in
                 MEDLINE segment
NEWS 13 DEC 17 MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS 14 DEC 17 CA/CAplus enhanced with new custom IPC display formats
NEWS 15 DEC 17 STN Viewer enhanced with full-text patent content
                 from USPATOLD
NEWS 16
        JAN 02
                 STN pricing information for 2008 now available
NEWS 17
        JAN 16
                 CAS patent coverage enhanced to include exemplified
                 prophetic substances
                 USPATFULL, USPAT2, and USPATOLD enhanced with new
NEWS 18 JAN 28
                 custom IPC display formats
NEWS 19 JAN 28
                MARPAT searching enhanced
NEWS 20 JAN 28 USGENE now provides USPTO sequence data within 3 days
                 of publication
NEWS 21 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 22 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements NEWS 23 FEB 08 STN Express, Version 8.3, now available
NEWS 24 FEB 20 PCI now available as a replacement to DPCI
NEWS 25 FEB 25 IFIREF reloaded with enhancements
NEWS 26 FEB 25 IMSPRODUCT reloaded with enhancements
NEWS 27 FEB 29 WPINDEX/WPIDS/WPIX enhanced with ECLA and current
                 U.S. National Patent Classification
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=>

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chain nodes :
11 12 13 14
ring nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

5-11 11-12 12-13 13-14

ring bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10$ 

exact/norm bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10 \quad 11-12 \quad 12-13$ 

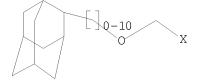
exact bonds : 5-11 13-14

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS 12:CLASS 13:CLASS 14:CLASS

## L1 STRUCTURE UPLOADED

=> d L1 HAS NO ANSWERS L1 STR



Structure attributes must be viewed using STN Express query preparation.

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chain nodes :

11 12 13 ring nodes:

1 2 3 4 5 6 7 8 9 10

chain bonds : 5-11 11-12 11-13

ring bonds :

1-2 1-6 2-3 2-7 3-4 4-5 4-10 5-6 6-9 7-8 8-9 8-10

exact/norm bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 2-7 \quad 3-4 \quad 4-5 \quad 4-10 \quad 5-6 \quad 6-9 \quad 7-8 \quad 8-9 \quad 8-10 \quad 11-12 \quad 11-13$ 

exact bonds :

5-11

Match level :

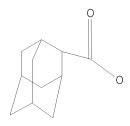
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS 12:CLASS 13:CLASS

## L2 STRUCTURE UPLOADED

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L2 HAS NO ANSWERS

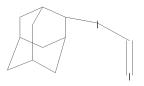
L2 STR



Structure attributes must be viewed using STN Express query preparation.

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chain nodes :

11 12 13

ring nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

5-11 11-12 12-13

ring bonds :

1-2 1-6 2-3 2-7 3-4 4-5 4-10 5-6 6-9 7-8 8-9 8-10

exact/norm bonds :

1-2 1-6 2-3 2-7 3-4 4-5 4-10 5-6 5-11 6-9 7-8 8-9 8-10 11-12 12-13

Match level :

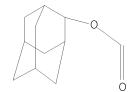
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L3 STRUCTURE UPLOADED

=> d

L3 HAS NO ANSWERS

L3 STR



Structure attributes must be viewed using STN Express query preparation.

=> 11 not 12 not 13

SAMPLE SEARCH INITIATED 08:38:06 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 452 TO ITERATE

100.0% PROCESSED 452 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\* BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 7765 TO 10315 PROJECTED ANSWERS: 0 TO

O SEA SSS SAM L1 NOT L2 NOT L3

=> 11 not 12 not 13 full FULL SEARCH INITIATED 08:38:12 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 9143 TO ITERATE

100.0% PROCESSED 9143 ITERATIONS 10 ANSWERS

SEARCH TIME: 00.00.01

10 SEA SSS FUL L1 NOT L2 NOT L3

=> file caplus

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=> 15

L6 23 L5

## => d ibib abs hitstr 1-23

L6 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:39211 CAPLUS

DOCUMENT NUMBER: 148:145183

TITLE: Polymerizable ester compounds, polymers for resist

compositions with good sensitivity and resolution INVENTOR(S): Watanabe, Takeru; Kinsho, Takeshi; Haseqawa, Koji;

Tachibana, Seiichiro; Ohashi, Masaki

PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan

SOURCE: U.S. Pat. Appl. Publ., 55pp.

III

CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
				_	
US 2008008962	A1	20080110	US 2007-822444		20070705
JP 2008013662	A	20080124	JP 2006-186297		20060706
KR 2008005105	A	20080110	KR 2007-67507		20070705
PRIORITY APPLN. INFO.:			JP 2006-186297	Α	20060706
GI					

$$\begin{array}{c|c}
0 & R^1 \\
R^1 & C \\
0 & C \\
X & C
\end{array}$$

$$\begin{array}{c}
A1 \\
> = 0 \\
0 \quad R1 \\
> \quad R1
\end{array}$$

$$\begin{array}{c}
0 \quad R4 \quad Z \\
Z \quad R4 \quad IV
\end{array}$$

AB The present invention relates to polymerizable ester compds. I, II, III, and IV which undergo no acid-induced decomposition by  $\beta$ -elimination, wherein A1 = polymerizable functional group having a carbon-carbon double

bond: R1 = H or C(R5)3; R2, R3 = alkyl; R4 = H or alkyl; R5 = monovalent hydrocarbon; X = alkylene; Y = methylene, ethylene or isopropylidene; Z = alkylene; and n = 1 or 2. Thus, 128 g 1-methylcyclohexylmethanol and 36 g paraformaldehyde were reacted and further reacted with methacrylic acid to give 1-methylcyclohexylmethyl methacrylate, 13.9 g of which was polymerized with 10.4 g 3-hydroxy-1-adamantyl methacrylate and 15.7 g 3-oxo-2-oxatricyclo[4.2.1.04,8]nonan-9-yl methacrylate in the presence of 2,2-azobis(2-methylpropanoate) at 80° for 6 h to give a copolymer with Mw 9200 and polydispersity 2.10, 80 parts of which was mixed with triphenylsulfonium nonafluorobutanesulfonate 4.4, propylene glycol monomethyl ether acetate 560, cyclohexanone 240, and s sensitivity regulator, spin-coated onto an antireflective coating-coated silicon wafer, baked at 110° for 1 min, irradiated with an excimer laser, baked at 115° for 60 s, developed, and washed to give a pattern, showing maximum resolution 70 nm and proximity bias 42 nm.

IT 1001199-75-2P

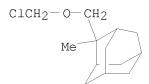
RL: IMF (Industrial manufacture); PRPH (Prophetic); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(intermediate in monomer preparation; preparation of polymerizable ester compds.,  $\$ 

polymers for resist compns. with good sensitivity and resolution)

RN 1001199-75-2 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-[(chloromethoxy)methyl]-2-methyl- (CA INDEX NAME)



L6 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1469801 CAPLUS

DOCUMENT NUMBER: 148:109068

TITLE: Low-molecular-weight compound for positive resist composition and method for forming resist pattern

INVENTOR(S): Shiono, Daiju; Hirayama, Taku; Hada, Hideo

DATEMENT ACCOUNTS (C)

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 59pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT I	PATENT NO.					DATE		1	APPL:	ICAT	ION I	NO.		D	ATE	
					_									_		
WO 2007	1484	56		A1		2007	1227	1	WO 2	007-	JP55	661		2	0070.	320
W:	W: AE, AG, AI			AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,
	CH, CN, CO		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,
	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	KM,	KN,
	ΚP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	MG,	MK,	MN,
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RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

JP 2008001604 A 20080110 JP 2006-169854 20060620 PRIORITY APPLN. INFO.:

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Compound I (A = trivalent aromatic cyclic group, alkyl group, alicyclic group, or trivalent organic group having an aromatic cyclic group or alicyclic group; R11-R17 = C1-10 alkyl or aromatic hydrocarbon group; g, j  $\geq$  1; k, q  $\geq$  0; g + j + k + q  $\leq$  5; b  $\geq$  1; l, m  $\geq$  0; b + l + m  $\leq$  4; c  $\geq$  1; n, o  $\geq$  0; c + n + o  $\leq$  4; Z = YCO2R; Y = alkylene, divalent aromatic hydrocarbon group, alicyclic group, divalent organic group having aromatic hydrocarbon group or alicyclic group; R

acid-cleavable dissoln.-inhibiting group) is usable for resist compns. for forming patterns with reduced line edge roughness (LER).

IT 177609-29-9, 2-Chloromethoxyadamantane

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of low-mol.-weight compds. for pos. resist compns. for forming resist patterns with reduced line edge roughness)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH<sub>2</sub>-O

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1059983 CAPLUS

DOCUMENT NUMBER: 147:374547

TITLE: Positive-working resist composition containing acrylic

polymer having acetal-type acid decomposable

solubility suppressing group and method of patterning

resist

INVENTOR(S): Kinoshita, Yohei; Furuya, Sanae; Iwai, Takeshi;

Haneda, Hideo

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 48pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 2007240718 A 20070920 JP 2006-60930 20060307
PRIORITY APPLN. INFO.: JP 2006-60930 20060307

AB Disclosed is a pos.-working resist composition comprising a resin component capable of increasing alkali solubility upon interaction with an acid, and an acid generating agent, wherein the resin component is acrylic polymer having acetal-type acid decomposable solubility-suppressing group represented by [CH2-CR(COO-(CH2)c-Y1{(CH2)e-OZ}a{(CH2)d-OH}b)] (R = H, halo, lower alkyl, etc.; Y1 = aliphatic cyclyl; Z = acid-decomposable

solubility-suppressing

group; a = 1-3; b = 0-2; a + b = 1-3; and c, d, and e = 0-3).

IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of acrylic resin component having having acetal-type acid decomposable solubility-suppressing group)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH2-0

L6 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:935060 CAPLUS

DOCUMENT NUMBER: 147:288278

TITLE: Preparation of adamantane based molecular glass photoresists for sub-200 nm immersion lithography

INVENTOR(S): Tanaka, Shinji; Ober, Christopher K.

PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., USA; Idemitsu Kosan

Co., Ltd.

SOURCE: PCT Int. Appl., 41pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PAT	TENT	NO.			KIN	D	DATE			APPL	ICAT	ION I	NO.		D.	ATE	
						_									_		
WO	2007	0947	84		A1		2007	0823	,	WO 2	006-	US53	78		2	0060	216
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		VN,	YU,	ZA,	ZM,	ZW											

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

WO 2006-US5378

20060216

AB Disclosed are glass photoresists generated from adamantane derivs. containing acetal and/or ester moieties as novel high-performance photoresist materials. Some of the disclosed adamantane-based glass resists have a tripodal structure and other disclosed adamantane-based glass resists include one or more cholic groups. The disclosed adamantane derivs. can be synthesized from starting materials which are com. available. By way of example only, one of many disclosed amorphous glass photoresists has the following structure: GR-5 Adamantane-1,3,5-triyltris(oxymethylene) tricholate.

IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of adamantane based mol. glass photoresist for immersion
 lithog.)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH2-O

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:350618 CAPLUS

DOCUMENT NUMBER: 146:368733

TITLE: Resist compounds, their production method, positive

resist compositions and method for forming resist

patterns

INVENTOR(S): Shiono, Daiju; Dazai, Takahiro; Hirayama, Taku; Kasai,

Kohei; Hada, Hideo

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 81pp.

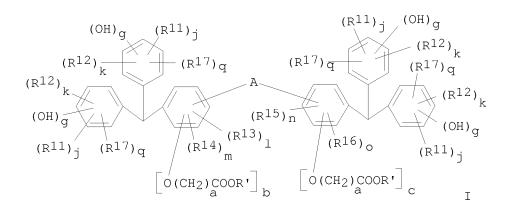
CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

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WO	2007	0347	19		A1		2007	0329	•	WO 2	006-	JP31	8151		2	00609	913
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		KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,
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                          Α
PRIORITY APPLN. INFO.:
                                            JP 2005-271760
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                                            JP 2006-239982
                                                                A 20060905
OTHER SOURCE(S):
                        MARPAT 146:368733
GT
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AΒ
     The resist compns. contain compds. I (A = Q; CH2, alicyclic group; R' = H,
     acid-cleavable dissoln. inhibiting group, where ≥1 of R' being an
     acid-cleavable dissoln. inhibiting group; R11-R19 = C1-10 alkyl or an
     aromatic hydrocarbon group and may include a heteroatom in the structure; g,
     j \ge 1; k, q \ge 0; g + j + k + q \le 5; a = 1-3; b
     \geq 1; 1, m \geq 0; b + 1 + m \leq 4; c \geq 1; n, o
     \geq 0; c + n + o \leq 4; r, y, z \geq 0; r + y + z \leq
     4). The resist compns. can form high-resol. resist patterns with improved
     line edge roughness (LER) by electron beam lithog. and extreme UV (EUV)
     lithog.
     177609-29-9
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (pos. resist compns. for forming high-resol. resist patterns)
RN
     177609-29-9 CAPLUS
CN
     Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)
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C1CH<sub>2</sub>-O

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:93733 CAPLUS

DOCUMENT NUMBER: 147:344702

TITLE: Thermolysis of polymethacrylates for 193 nm resist AUTHOR(S): Ogata, Toshiyuki; Kasai, Kohei; Matsumaru, Shogo; Takahashi, Motoki; Hada, Hideo; Shirai, Masamitsu

CORPORATE SOURCE: Tokyo Ohka Kogyo Co., Ltd., 1590 Tabata,

Samukawa-machi, Koza-gun, Kanagawa, 253-0114, Japan SOURCE: Journal of Photopolymer Science and Technology (2006),

10.61 705 700

19(6), 705-708 CODEN: JSTEEW; ISSN: 0914-9244

PUBLISHER: Technical Association of Photopolymers, Japan

DOCUMENT TYPE: Journal LANGUAGE: English

AB Thermal desorption spectroscopic results of thermal degradation of 2-adamantyloxymethyl methacrylate- $\gamma$ -butyrolactone methacrylate copolymer and 2-methyl-2-adamantyl methacrylate- $\gamma$ -butyrolactone methacrylate copolymer films showed the thermal stability of each protecting group such as 2-adamantyl oxymethyl ester and

2-methyl-2-adamantyl ester, and is in good agreement with TGA results. The stereoregularity of these polymers affected thermal degradation process

(deesterification and dehydration) of the polymer film.

IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction with methacrylic acid)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH<sub>2</sub>-O

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1228843 CAPLUS

DOCUMENT NUMBER: 145:513854

TITLE: Positive resist composition and method of forming

resist pattern

INVENTOR(S): Kinoshita, Yohei; Irie, Makiko; Ohkubo, Waki;

Nakagawa, Yusuke; Hidesaka, Shinichi

## Page 334

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 49pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.					KIN	D	DATE			APPL	ICAT	ION I	NO.		D	ATE	
	WO	2006	 1234	 87		A1	_	2006	1123		WO 2	006-	 JP30	7486		2	0060	407
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			NA,	NG,	NI,	NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,
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PRIO	ORITY APPLN. INFO.:										JP 2	005-	1468	59	i	A 2	0050	519
GT																		

$$\begin{array}{c|c} & & & \\ & & & \\ \hline & & \\ & & \\ & & \\ \hline & & \\ \hline & & \\ & & \\ \hline & & \\$$

The resist composition can form a resist pattern of a satisfactory shape. The resist composition is obtained by dissolving in an organic solvent a resin ingredient (A) whose alkali solubility increases by the action of an acid and an acid generator ingredient (B) which generates an acid upon irradiation with a radiation, wherein the resin ingredient (A) comprises a copolymer bearing a constituent unit having an acetal-type protective group, a constituent unit I (R = H, F, lower alkyl, lower fluoroalkyl; R' = H, lower alkyl, C1-5 alkoxy; m = 0, 1) derived from an acrylic ester having a lactone-containing polycyclic group, and a constituent unit derived from an acrylic ester having a polar-group-containing aliphatic hydrocarbon group.

IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(pos.-working resist compns. and method for resist pattern formation)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH2-O

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1226563 CAPLUS

DOCUMENT NUMBER: 145:513852

TITLE: Positive-working resist composition and method for

resist pattern formation

INVENTOR(S): Kinoshita, Yohei; Ohkubo, Waki; Nakagawa, Yusuke;

Hidesaka, Shinichi; Irie, Makiko

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 53pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PA	PATENT NO.					D	DATE				LICAT					ATE	
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JP	2006	3229	89		Α		2006	1130		JP 2	2005-	1439	69		2	0050	517
EP	1882	981			A1		2008	0130		EP 2	2006-	7320	52		2	0060	418
	R:	DE															
KR	2007	1187	8 0		A		2007	1217		KR 2	2007-	7271	26		2	0071	121
PRIORIT	Y APP	LN.	INFO	.:						JP 2	2005-	1439	69		A 2	0050	517
										WO 2	2006-	JP30	8124		W 2	0060	418
OTHER SO	THER SOURCE(S):					PAT	145:	5138	52								

Ι

AB This invention provides a pos.-working resist composition containing a resin component (A) and an acid generating agent component (B), which, upon a change in exposure, causes no significant variation in pattern size, and a method for resist pattern formation using this resist composition Component (A) comprises a polymer comprising constitutional units containing an acetal-type protective group, acrylic ester-derived constitutional units containing a lactone-containing cyclic group, and acrylic ester-derived constitutional units containing a polar group-containing aliphatic hydrocarbon group.

Component (B) comprises an onium salt-type acid generating agent having a cation part I [R11 = alkyl, alkoxy, halo, hydroxy; R12, R13 = (un)substituted aryl or alkyl; n' = 1-3].

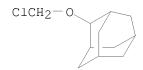
IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(pos.-working resist compns. and method for resist pattern formation)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:845377 CAPLUS

DOCUMENT NUMBER: 145:281061

TITLE: Positive resist composition and method of forming

resist pattern

INVENTOR(S): Kinoshita, Yohei; Hirano, Isao PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 63pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PA'	PATENT NO.					D	DATE			APPL	ICAT:	ION I	. O <i>V</i>		D	ATE	
WO	2006	 0878	 65		A1	_	2006	0824		 WO 2	005-	JP22:	 878		2	0051	213
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JP	JP 2006227160						2006	0831		JP 2	005-3	3894	4		2	00502	216
PRIORIT	Y APP	.:						JP 2	005-3	3894	4	ž	A 2	00502	216		
OTHER SO	OURCE	(S):			MAR	PAT	145:	2810	61								

The invention relates to a pos. resist composition which comprises a resin ingredient (A) which comes to have enhanced alkali solubility by the action of an acid and an acid generator ingredient (B) which generates an acid upon irradiation with a radiation, wherein the ingredient (A) comprises a structural unit (a1) represented by the general formula I or II, a structural unit (a2) derived from an acrylic ester having a lactone-containing

monocyclic or polycyclic group, and a structural unit (a3) which is a structural unit other than the structural units (a1) and (a2) and is derived from an acrylic ester which contains a non-acid-dissociable dissoln.—inhibitive group having an alicyclic group and contains no polar groups, and the ingredient (B) comprises an onium salt (B1) having an anion moiety represented by the formula R41-S03—.

IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (resin in pos. resist composition)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH<sub>2</sub>-O

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:734536 CAPLUS

DOCUMENT NUMBER: 145:177268

TITLE: Positive resist composition and method for forming

resist pattern

INVENTOR(S):
Kinoshita, Yohei

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

P.	PATENT NO.					D	DATE			APF	PLI(	CAT	I NOI	.OI		D.	ATE	
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JE	2006	2012	39		Α		2006	0803		JΡ	200	05 - 3	1005	1		2	0050	118
JE	JP 2006201402						2006	0803		JΡ	200	05 - 3	12053	3		2	0050	119
PRIORIT	RIORITY APPLN. INFO.:									JΡ	200	05 - 1	1005	1	Ž	A 2	0050	118
										JΡ	200	05-1	12053	3	Ž	A 2	0050	119
OTHER S	SOURCE		MAR	PAT	145:	1772	8 6											

GΙ

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Disclosed is a pos. resist composition having high resolution which enables to improve DOF. This composition contains a resin component (A) whose alkali solubility is increased by the action of an acid and an acid generator component (B) which generates an acid when exposed to light. The resin component (A) has at least one constitutional unit (a1) selected from those represented by the general formula I and the general formula II, and the acid generator component (B) is composed of an onium salt acid generator (B1) having a cation component represented by the general formula III or an onium salt acid generator (B4) having an anion component represented by the general formula IV or -N(-SO2-Y")(-SO2-Z"). In the formulas below, Y represents an alicyclic group; n represents 0 or an integer of 1-3; m represents 0 or 1; R represents a hydrogen atom, a lower alkyl group, a fluorine atom or a fluorinated lower alkyl group; R1 and R2 resp. represent a hydrogen atom or a lower alkyl group; R11 represents an alkyl group, an alkoxy group, a halogen atom or a hydroxyl group; R12 and R13 resp. represent an aryl group of an alkyl group; and n' represents 0 or an integer of 1-3; X" represents F-substituted C2-6 alkylene; Y" and Z" represent F-substituted C1-10 alkyl.

IT 177609-29-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(pos. resist composition)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH<sub>2</sub>-O

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:601730 CAPLUS

DOCUMENT NUMBER: 145:92960

TITLE: Polymer compound, positive resist composition and

method for forming resist pattern

INVENTOR(S): Kinoshita, Yohei; Kurimoto, Yuko; Iwai, Takeshi

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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                        A1 20060622 WO 2005-JP21146
                                                                 20051117
    WO 2006064626
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            GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ,
            LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ,
            NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
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            YU, ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
            CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
            GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
            KG, KZ, MD, RU, TJ, TM
    JP 2006169319 A 20060629
                                          JP 2004-361399
                                                                 20041214
PRIORITY APPLN. INFO.:
                                           JP 2004-361399 A 20041214
GΙ
```

$$\begin{bmatrix} H_2 \\ C \end{bmatrix} \\ 0 \\ C \\ 0 \\ R^1 - C - R^2 \\ 0 \\ C \\ CH_2 \\ 1 \\ 0 \\ C \\ 0 \\ R^1 - C - R^2 \\ 0 \\ CH_2 \\ Y$$

The disclosed polymer has constitutional units I and II (Y = alicyclic group; n = 0, 1-3; m = 0, 1; R = H, C1-5 alkyl, F, C1-5 fluoroalkyl; R1, R2 = H, C1-5 alkyl). The polymer may also contain acrylate units with lactone-containing mono- or poly-cyclic ring and or acrylate units with polar hydrocarbyl group which does not dissociate by an acid. The disclosed photoresists contains the above polymer and a photoacid generator. The resist shows high resolution and high pattern quality.

IT 177609-29-9

ΙI

RL: RCT (Reactant); RACT (Reactant or reagent)

(esterification with methacrylic acid in preparation of polymer for photoresists)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH2-O

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:410214 CAPLUS

DOCUMENT NUMBER: 144:422710

TITLE: Photoacid generation type photoresist component with

acid-cleavable dissolution inhibiting groups

INVENTOR(S): Shiono, Daiju; Hirayama, Taku; Ogata, Toshiyuki; Hada,

Hideo

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.					D	DATE			APP	LICAT				D	ATE	
WO	2006	0463	83		A1	_	2006	0504		WO	2005-				2	0050	930
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	ΒA,	BB	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ	, EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS	, KE,	KG,	KM,	KP,	KR,	KΖ,	LC,
		LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD	, MG,	MK,	MN,	MW,	MX,	MΖ,	NA,
		NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PΤ	, RO,	RU,	SC,	SD,	SE,	SG,	SK,
		SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ	, UA,	UG,	US,	UZ,	VC,	VN,	YU,
		ZA,	ZM,	ZW													
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE	, ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
	RW: AT, BE, B IS, IT, L				LU,	LV,	MC,	NL,	PL,	PΤ	, RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML	, MR,	ΝE,	SN,	TD,	ΤG,	BW,	GH,
		GM,	ΚE,	LS,	MW,	ΜZ,	NA,	SD,	SL,	SZ	, TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KΖ,	MD,	RU,	ΤJ,	TM										
JP	2006	2679	96		Α		2006	1005		JΡ	2005-	2129	04		2	0050	722
EP	1806	619			A1		2007	0711		ΕP	2005-	7882	89		2	0050	930
	R:	BE,	DE,	FR													
KR	KR 2007084080						2007	0824		KR	2007-	7104	73		2	0070	508
PRIORIT	PRIORITY APPLN. INFO.:									JΡ	2004-	3156	01		A 2	0041	029
										JΡ	2004-	3782	48	1	A 2	0041	227
										JΡ	2005-	5072	2		A 2	0050	225
										JΡ	2005-	2129	04		A 2	0050	722
										WO	2005-	JP18	143	1	W 2	0050	930

 $\ensuremath{\mathsf{AB}}$  Disclosed is a resist composition containing a compound obtained by substituting a

part or all of hydrogen atoms in the phenolic hydroxyl groups of a polyvalent phenolic compound (a) which has two or more phenolic hydroxyl groups and a mol. weight of 300-2500 with at least one group selected from the group consisting of acid-cleavable dissoln. inhibiting groups represented by the general formulas -(CH2)n'CO2R1 or -CHR3OR2 below (wherein R1 and R2 independently represent a branched or cyclic alkyl group which may contain a heteroatom, R3 represents a hydrogen atom or a lower alkyl group, and n' represents an integer of 1-3).

IT 177609-29-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(reactant of photoacid generation type photoresist component with acid-cleavable dissoln. inhibiting groups)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH2-0

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:366907 CAPLUS

DOCUMENT NUMBER: 144:422694

TITLE: Positive photoresist composition for immersion

exposure and method of forming resist pattern

INVENTOR(S): Ogata, Toshiyuki; Tsuji, Hiromitsu; Matsumaru, Syogo;

Hada, Hideo

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PAI	PATENT NO.					D	DATE			APPL	ICAT	ION I	NO.		D.	ATE	
WO	2006	0409	 49		A1	_	2006	0420	,	WO 2	005-	 JP18	 138		2	0050	930
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	KG,	KM,	KP,	KR,	KΖ,	LC,
		LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
		NG,	ΝI,	NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,
		SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,
		ZA,	ZM,	ZW													
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,
		IS,	ΙT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	$\mathrm{ML}_{\prime}$	MR,	ΝE,	SN,	TD,	TG,	BW,	GH,
	GM, KE, LS		LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,	
	KG, KZ, MI			MD,	RU,	ΤJ,	TM										

JP 2006113140 A 20060427 JP 2004-297945 20041012 KR 2007061862 A 20070614 KR 2007-708172 20070410 PRIORITY APPLN. INFO.: JP 2004-297945 A 20041012 WO 2005-JP18138 W 20050930

The invention relates to a pos. resist composition for immersion exposure which comprises a resin ingredient (A) which comes to have enhanced alkali solubility by the action of an acid and an acid generator ingredient (B) which generates an acid upon exposure to light, characterized in that the resin ingredient (A) comprises a resin (A1) which has alkali-soluble groups (i) having a hydrogen atom and in which the hydrogen atom of part of the alkali-soluble groups (i) has been replaced with an acid-dissociable dissoln.—inhibitive group (I) represented by the following general formula -C(R1)(R2)-O-(-CH2)n-Z [wherein Z represents an alicyclic group; n is an integer of 0-3; and R1 and R2 each independently represents hydrogen or C1-5 alkyl]. Composition provides high resolution patterns of good profile.

IT 177609-29-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(resin in pos. photoresist composition)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH2-0

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1354495 CAPLUS

DOCUMENT NUMBER: 144:97681

TITLE: Monomers for polymer compound, positive resist

composition and method for forming resist pattern INVENTOR(S): Ogata, Toshiyuki; Matsumaru, Syogo; Hada, Hideo

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 2005123655	A1 20051229	WO 2005-JP11067	20050616
W: AE, AG, AL,	AM, AT, AU, AZ,	BA, BB, BG, BR, BW, BY,	, BZ, CA, CH,
CN, CO, CR,	CU, CZ, DE, DK,	DM, DZ, EC, EE, EG, ES,	, FI, GB, GD,
GE, GH, GM,	HR, HU, ID, IL,	IN, IS, KE, KG, KM, KP,	, KR, KZ, LC,
LK, LR, LS,	LT, LU, LV, MA,	MD, MG, MK, MN, MW, MX,	, MZ, NA, NG,
NI, NO, NZ,	OM, PG, PH, PL,	PT, RO, RU, SC, SD, SE,	, SG, SK, SL,
SM, SY, TJ,	TM, TN, TR, TT,	TZ, UA, UG, US, UZ, VC,	, VN, YU, ZA,
ZM, ZW			

```
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

JP 2006001907 A 20060105 JP 2004-182299 20040621

PRIORITY APPLN. INFO:: JP 2004-182299 A 20040621

OTHER SOURCE(S): MARPAT 144:97681
```

AB Disclosed is a pos. resist composition with excellent resolution which enables to

form a good resist pattern even when there is used an acid generator which generates a weak acid. Such a pos. resist composition contains a polymer compound having a constitutional unit (a1) represented by the general formula I and an acid generator component (B) which generates an acid when exposed to light. In the formula, R1 represents a hydrogen atom or a lower alkyl group; R3 represents an alkyl group having 1-15 carbon atoms or an alicyclic group, and may have one or more substituents selected from the group consisting of ether bonds, hydroxyl group, carbonyl groups, ester groups and amino group; and n2 represents 0 or an integer of 1-3. 720682-49-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(compound, polymer compound, pos. resist composition and method for forming resist pattern)

RN 720682-49-5 CAPLUS

Ι

CN Tricyclo[3.3.1.13,7]decanone, 4-(chloromethoxy)- (9CI) (CA INDEX NAME)

ΙT

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1241028 CAPLUS

DOCUMENT NUMBER: 143:485833

TITLE: Adamantane derivative, method for producing same and

photosensitive material for photoresist

INVENTOR(S): Ito, Katsuki; Ono, Hidetoshi; Tanaka, Shinji;

Hatakeyama, Naoyoshi; Miyamoto, Shinji; Matsumoto,

Nobuaki

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAI	PATENT NO.					D	DATE			APPL	ICAT	ION 1	NO.		D	ATE	
WO	2005	1110	 97		A1	_	 2005	1124	1	wo 2	005-i	JP89	 43		2	0050	 517
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KM,	KP,	KR,	KΖ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
		NG,	ΝI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,
		SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,
		ZA,	ZM,	ZW													
	RW:	BW,	GH,	GM,	KΕ,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	IS,	ΙΤ,	LT,	LU,	MC,	NL,	PL,	PT,
		RO,	SE,	SI,	SK,	TR,	BF,	ΒJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,
		MR,	ΝE,	SN,	TD,	ΤG											
PRIORITY	RIORITY APPLN. INFO.:									JP 2	004-	1479	46		A 2	0040	518
OTHER SC	URCE	(S):			MAR	PAT	143:	48583	33								

 $^{Y}h$   $^{O}$   $^{O}$   $^{O}$   $^{CO}$   $^{C}$   $^{C}$ 

AB Disclosed is an adamantane derivative which is useful as a monomer for a functional resin such as a photosensitive resin that is used in the fields

GΙ

of photolithog. Also disclosed are a method for efficiently producing such an adamantane derivative and a photosensitive material for photoresists containing a polymer obtained from such an adamantane derivative Specifically disclosed is an adamantane derivative which is characterized by having a structure represented by the following general formula I wherein R1 represents a hydrogen atom, a Me group or a trifluoromethyl group; Y represents an alkyl group having 1-10 carbon atoms, a halogen atom or a hydroxyl group, or alternatively two Ys may combine together to form =0, and a plurality of Ys may be the same as or different from one another; k represents an integer of 0-15; and m represents 0 or 1. Also specifically disclosed are a method for producing an adamantane derivative represented by the above general formula (I) which is characterized by reacting a halomethyl adamantyl (methyl) ether with a (meth)acrylic acid or an acid anhydride thereof, and a photosensitive material for photoresists containing a polymer obtained from such an adamantane derivative

IT 869726-26-1 869726-28-3

RL: RCT (Reactant); RACT (Reactant or reagent)
 (adamantane derivative for photoresist composition)

RN 869726-26-1 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-[(chloromethoxy)methyl]- (CA INDEX NAME)

RN 869726-28-3 CAPLUS

CN Tricyclo[3.3.1.13,7]decanone, 4-[(chloromethoxy)methyl]- (9CI) (CA INDEX NAME)

IT 177609-29-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(adamantane derivative for photoresist composition)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:962319 CAPLUS

DOCUMENT NUMBER: 143:257069

TITLE: Polymer compound, photoresist composition containing

such polymer compound, and method for forming resist

pattern

INVENTOR(S): Ogata, Toshiyuki; Matsumaru, Syogo; Kinoshita, Yohei;

Hada, Hideo; Shiono, Daiju; Shimizu, Hiroaki; Kubota,

APPLICATION NO.

DATE

Naotaka

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: PCT Int. Appl., 91 pp.

CODEN: PIXXD2

KIND DATE

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT NO

PA.	KIND DAIE					AFF	LICAI.	TON I	DAIE									
WO	2005	 73		A1		20050901		WO 2005-JP1228						20050128				
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB	, BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ	, EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	, KE,	KG,	KΡ,	KR,	KΖ,	LC,	LK,	
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK	, MN,	MW,	MX,	MΖ,	NΑ,	NI,	NO,	
		NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC	, SD,	SE,	SG,	SK,	SL,	SY,	ΤJ,	
		TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	, VC,	VN,	YU,	ZA,	ZM,	ZW		
	RW:	BW,	GH,	GM,	KΕ,	LS,	MW,	MZ,	NA,	SD	, SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	
		ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM,	AT,	, BE,	BG,	CH,	CY,	CZ,	DE,	DK,	
		EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	IS,	, IT,	LT,	LU,	MC,	NL,	PL,	PT,	
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	, CI,	CM,	GΑ,	GN,	GQ,	GW,	$ ext{ML}$ ,	
		,	ΝE,	SN,	TD,	ΤG												
	JP 2006096965														20041029			
EP	EP 1717261			A1	20061102			EP 2005-709454					20050128					
		DE,	FR															
	CN 1918217					A 20070221												
RIORIT	ORITY APPLN. INFO.:								JP 2004-45522					A 20040220				
										_	2004-					0040		
										-	2004-	-	-			0040	-	
											2004-:			_		0040		
											2004-			-		0041		
										WO 2	2005-	JP12.	28	1	W 2	0050	128	

AB Disclosed is a polymer compound which enables to obtain a highly sensitive photoresist composition which forms a fine pattern with excellent resolution and

good rectangular shape and is capable of obtaining good resist characteristics even when the acid generated by an acid generator is weak. Also disclosed are a photoresist composition using such a polymer compound and

method for forming a resist pattern using such a photoresist composition The
 photoresist composition and resist pattern-forming method use a polymer
compound

having an alkali-soluble group (i) which is at least one substituent selected from an alc. hydroxyl group, a carboxyl group and a phenolic hydroxyl group and protected by an acid-cleavable dissoln. inhibiting group (ii)

represented by general formula -CH2-O-(-CH2)n-R1 wherein R1 represents an alicyclic group having 20 or less carbon atoms which may have an oxygen, nitrogen, sulfur or halogen atom; and n represents 0 or an integer of 1-5.

IT 177609-29-9P 720682-49-5P

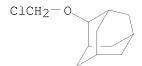
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(polymer compound, photoresist composition containing such polymer compound, and

method for forming resist pattern)

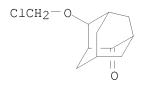
RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)



RN 720682-49-5 CAPLUS

CN Tricyclo[3.3.1.13,7]decanone, 4-(chloromethoxy)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:565183 CAPLUS

DOCUMENT NUMBER: 141:107948

TITLE: Adamantane derivatives and process for producing them

INVENTOR(S): Tanaka, Shinji; Ono, Hidetoshi; Kodoi, Kouichi;

Hatakeyama, Naoyoshi

PATENT ASSIGNEE(S): Idemitsu Petrochemical Co., Ltd., Japan

.....

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE			
=	A1 20040715	WO 2003-JP16258	20031218			
W: KR, US RW: AT, BE, BG,	CH, CY, CZ, DE,	DK, EE, ES, FI, FR, GB,	GR, HU, IE,			
IT, LU, MC,	NL, PT, RO, SE,	SI, SK, TR				
JP 2004217627		JP 2003-414445	20031212			
EP 1577285	A1 20050921	EP 2003-780891	20031218			
R: AT, BE, CH,	DE, DK, ES, FR,	GB, GR, IT, LI, LU, NL,	SE, MC, PT,			

IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK

US 2006149073 A1 20060706 US 2005-540547 20051213 PRIORITY APPLN. INFO.: JP 2002-374659 A 20021225 WO 2003-JP16258 W 20031218

OTHER SOURCE(S): MARPAT 141:107948

GΙ

AB Compds. I and II (R1-R4 = H, halo, C1-10 alkyl, C1-10 haloalkyl; X = halo; Y = C1-10 alkyl, C1-10 haloalkyl, halo, heteroatom-containing group; m = 0-15; n = 0-10; wherein in I, the case where both of m and n are 0 and both of R3 and R4 are H is excluded; in I and II, two Y groups may form :O group), such as chloromethyl adamantylmethyl ether and chloromethyl 4-oxo-2-adamantyl ether, are prepared The adamantane derivs. are useful as modifiers for photoresist resins in the field of photolithog., dry-etching resistance improvers, intermediates for agricultural chems. and medicines, and other various industrial products.

TT 720682-49-5P
RL: IMF (Industrial manufacture); PREP (Preparation)

(preparation of adamantane derivs.)

RN 720682-49-5 CAPLUS

CN Tricyclo[3.3.1.13,7]decanone, 4-(chloromethoxy)- (9CI) (CA INDEX NAME)

L6 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:793943 CAPLUS

DOCUMENT NUMBER: 137:317924

TITLE: Perfluoroalkylsulfonic acid compounds for photoresists

INVENTOR(S): Ferreira, Lawrence; Blakeney, Andrew J.; Spaziano, Gregory Dominic; Dimov, Ognian; Kocab, Thomas J.;

Hatfield, John P.

PATENT ASSIGNEE(S): Arch Specialty Chemicals, Inc., USA

SOURCE: PCT Int. Appl., 81 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	CENT :		KIND		DATE	A	APPLICATION NO.						DATE					
WO	2002	A1 20021017			WO 2002-US10800						20020405							
	W:	JP,	KR,	SG														
	RW:	AT,	BE,	CH,	CY,	DE,	DK,	ES,	FI,	FR,	, GB,	GR,	ΙE,	ΙΤ,	LU,	MC,	NL,	
		PT,	SE,	TR														
US	2002	1975	58		A1 20021226			US 2002-117693						20020405				
US	6855	476			В2		2005	0215										
EP	1299	A1 20030409			EP 2002-725542						20020405							
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	, IT,	LI,	LU,	NL,	SE,	MC,	PT,	
		ΙE,	FΙ,	CY,	TR													
JP	2004	5195	20	T	T 20040702			JP 2002-579891						20020405				
TW	2759	05			В		2007	0311	T.	W 2	2002-	91106	6973		2	0020	408	
PRIORITY	RIORITY APPLN. INFO.:								U	S 2	2001-	28165	52P		P 2	0010	405	
									W	0 2	2002-1	US108	300	1	W 2	0020	405	

# OTHER SOURCE(S): MARPAT 137:317924

AB The present invention relates to a photoacid compound that produce a fluorinated alkyl sulfonic acid having a short perfluoroalkyl chain attached to an ether linkage. The invention photoacid has general structure: R-O(CF2) nSO3X (n=1-4; R=C1-C12 alkyl or alkenyl, araalkyl, aryl, bicycloalkyl, tricycloalkyl, H, alkyl sulfonic acid, perfluoroalkyl, general structure F((CF2) pO) m(CF2) q-; p=1-4; m=0-3; q=1-4; etc.; X=0 organic cations and covalently bonded organic radicals). The present invention relates photoresist compn comprising such photoacid generator compound 470701-80-5

RL: TEM (Technical or engineered material use); USES (Uses) (photoacid for photoresists composition and photolithog.)

RN 470701-80-5 CAPLUS

CN Ethanesulfonic acid, 1,1,2,2-tetrafluoro-2-(tricyclo[3.3.1.13,7]dec-2-yloxy)-, 2-oxo-1,2-diphenylethyl ester (CA INDEX NAME)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS

#### RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 19 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN 1.6

ACCESSION NUMBER: 1997:213304 CAPLUS

DOCUMENT NUMBER: 126:305766

Amino acids and peptides. L. Development of a novel TITLE:

 $N\pi$ -protecting group for histidine,

 $N\pi-2$ -adamantyloxymethylhistidine, and its

application to peptide synthesis

AUTHOR(S): Okada, Yoshio; Wang, Jidong; Yamamoto, Takeshi; Yokoi,

Toshio; Mu, Yu

Faculty of Pharmaceutical Sciences, Kobe Gakuin CORPORATE SOURCE:

University, Kobe, 651-21, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1997), 45(3),

452-456

CODEN: CPBTAL; ISSN: 0009-2363

PUBLISHER: Pharmaceutical Society of Japan

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

AΒ  $N\alpha$ -tert-butyloxycarbonyl- $N\pi$ -adamantyloxymethylhistidine, Boc-His(N $\pi$ -2-Adom)-OH (I), was prepared by the reaction of Boc-His( $N\tau$ -Boc)-OMe with 2-adamantyloxymethyl chloride (2-Adom-C1)

followed by saponification The 2-Adom group was stable to TFA, 1 N NaOH and 20%

piperidine/DMF and was easily removed by 1 M trifluoromethanesulfonic acid-thioanisole/TFA and HF. This new protecting group suppressed racemization during peptide synthesis and exhibited high solubility in organic solvents. It was applied to the synthesis of TSH-releasing hormone (TRH) using both solution and solid-phase methods. The 2-Adom group can be used for peptide synthesis in combination with the Boc group as the  $N\alpha$ -protecting group in both solution and solid-phase methods.

177609-29-9P ΤТ

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(adamantyloxymethyl as a protecting group for imidazole  $\pi$ -N of histidine)

177609-29-9 CAPLUS RN

Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME) CN

C1CH2-O

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:257355 CAPLUS

DOCUMENT NUMBER: 125:34138

TITLE: Synthesis of N $\pi$ -2-adamantyloxymethylhistidine,

 $\operatorname{His}(N\pi-2-\operatorname{Adom})$ , and its evaluation for peptide

synthesis

AUTHOR(S): Okada, Yoshio; Wang, Jidong; Yamamoto, Takeshi; Mu, Yu

CORPORATE SOURCE: Faculty Pharmaceutical Sciences, Kobe Gakuin Univ.,

Kobe, 651-21, Japan

SOURCE: Journal of the Chemical Society, Perkin Transactions

1: Organic and Bio-Organic Chemistry (1996), (8),

753 - 4

CODEN: JCPRB4; ISSN: 0300-922X

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 125:34138

AB  $N\pi-2$ -Adamantyloxymethylhistidine, His( $N\pi-2$ -Adom), is prepared and

successfully applied to the synthesis of TSH-releasing hormone (TRH) in

combination with tert-butyloxycarbonyl (Boc) as the  $N\alpha$ -protecting

group. This new protecting group suppressed racemization during peptide

synthesis and exhibited high solubility in organic solvents.

IT 177609-29-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and peptide coupling reactions of protected

(adamantyloxymethyl)histidine)

RN 177609-29-9 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-(chloromethoxy)- (CA INDEX NAME)

C1CH2-O

L6 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:127040 CAPLUS

DOCUMENT NUMBER: 124:246220

TITLE: Photochemical reactions of some mono- and diketo

derivatives of adamantane in different solvents

AUTHOR(S): Rykov, S. V.; Skakovskii, E. D.; Oppengeim, V. D.;

Bagrii, E. I.; Filatova, M. P.

### Page 353

A. V. Topchiev Inst. Petrochemical Synthesis, Russian CORPORATE SOURCE:

Academy Sci., Moscow, 117912, Russia

Izvestiya Akademii Nauk, Seriya Khimicheskaya (1995), SOURCE:

> (9), 1833-5CODEN: IASKEA

Institut Organicheskoi Khimii im. N. D. Zelinskogo PUBLISHER:

Rossiiskoi Akademii Nauk

DOCUMENT TYPE: Journal LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 124:246220

Adamantanes are photoactive in the presence of CC14 and CDC13. The mechanism of photolysis suggested to include the formation of singlet- or

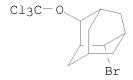
triplet-excited donor-acceptor complexes.

174972-28-2 174972-29-3 TТ

> RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative) (photochem. reactions of mono- and diketo adamantane derivs. in presence of carbon tetrachloride)

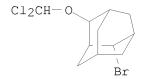
174972-28-2 CAPLUS RN

CN Tricyclo[3.3.1.13,7]decane, 2-bromo-4-(trichloromethoxy)- (CA INDEX NAME)



RN 174972-29-3 CAPLUS

Tricyclo[3.3.1.13,7]decane, 2-bromo-4-(dichloromethoxy)- (CA INDEX NAME) CN



ANSWER 22 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:422197 CAPLUS

DOCUMENT NUMBER: 103:22197

ORIGINAL REFERENCE NO.: 103:3651a,3654a

TITLE: Adamantane-type carbamates Novikova, M. I.; Kozlov, O. F. AUTHOR(S):

CORPORATE SOURCE: USSR

SOURCE: Vestn. Kiev. Politekhn. In-ta. Khim. Mashinostr. i

Tekhnol. (1984), (21), 6-9

From: Ref. Zh., Khim. 1985, Abstr. No. 2Zh144

DOCUMENT TYPE: Journal LANGUAGE: Russian

CASREACT 103:22197 OTHER SOURCE(S):

AΒ Title only translated.

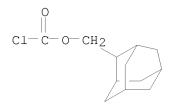
ΙT 97042-08-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with amines, carbamates by)

RN 97042-08-5 CAPLUS

CN Carbonochloridic acid, tricyclo[3.3.1.13,7]dec-2-ylmethyl ester (CA INDEX NAME)



L6 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:152109 CAPLUS

DOCUMENT NUMBER: 88:152109

ORIGINAL REFERENCE NO.: 88:23957a,23960a

TITLE: Adamantyl perfluoroisobutenyl ethers

AUTHOR(S): Kryukov, L. N.; Vitkovskii, V. S.; Kryukova, L. Yu.;

Isaev, V. L.; Sterlin, R. N.; Knunyants, I. L.

CORPORATE SOURCE: USSR

SOURCE: Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva im. D.

I. Mendeleeva (1978), 23(1), 115
CODEN: ZVKOA6; ISSN: 0373-0247

DOCUMENT TYPE: Journal LANGUAGE: Russian

AB Treating (F3C) 2C:CF2 with ROH (R = 2-naphthyl, 1- and 2-adamantyl) and Na  $^{2}$ 

gave 33-41% (F3C)2C:CFOR.

IT 66258-27-3P

RN

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of) 66258-27-3 CAPLUS

CN Tricyclo[3.3.1.13,7]decane, 2-[[1,3,3,3-tetrafluoro-2-(trifluoromethyl)-1-tetrafluoro-2-(trifluoromet

propenyl]oxy]- (9CI) (CA INDEX NAME)

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COST IN U.S. DOLLARS

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

SESSION

304.40

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE -18.40 -18.40

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